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DIESEL RAILWAY TRACTION

The August issue of this RAILWAY GAZETTE publication, illustrating and describing developments in Diesel Railway Traction, is now ready, price 2s.

Development of the Rhodesia Railways

INCREASING traffics between Northern and Southern Rhodesia on the one hand, and the sea and the Union of South Africa on the other, have called for extensive development of the Rhodesia Railways. The Southern Rhodesian Minister of Mines & Transport, Mr. G. A. Davenport, stated this week that during the next four years requirements of additional capital for the railway may amount to £25,000,000. Negotiations, he said, were in progress for further loans and there was a possibility of raising £17,500,000. The Minister said that between £6,000,000 and £7,000,000 would be spent in the next three years on new locomotives and rolling stock. Other capital expenditure required included construction of permanent way, marshalling yards, new stations, water storage and housing for European and native employees. With the present general downward trend of traffic receipts and

restricted capital expenditure on railways in the more developed countries of the world, it is encouraging to hear not only, as in the last report of the Rhodesian Railways, of record freight and passenger takings, but also of bold schemes for railway expansion. The Rhodesia Railways programme will not only increase the efficiency of the railway, but help in the economic development of the two territories, Northern and Southern Rhodesia, served by it and, indirectly, of the ports in other territories which are the Rhodesias' gateway to the world: and the extensive orders for railway plant will be welcomed by the manufacturers. Referring to the outlets to the sea, which were the subject of an article in our June 23 issue, the Minister said of the Economic Co-operation Administration survey party which is studying the expansion of railway outlets from Central Africa to the East Coast, that the year 1953 might be a critical one as regards sea traffic. Accordingly it would be necessary to take an immediate decision when the recommendations of the survey party were received, and commence the construction of whatever line might be decided upon as soon as finance could be arranged. Mr. Davenport is not in favour of concentration of traffic on the port of Beira, which would involve doubling of part of the Bulawayo-Salisbury-Beira line; this, he states, "keeps all our eggs in one basket" and would mean further delays while the port is again extended. Once Beira and the Beira railway are built up to a capacity of 3,000,000 tons a year, he considers that the Rhodesias must have access to Lourenço Marques also.

Atlantic Outlet for Rhodesia

THE Minister considers the 20-year convention relating to Beira port and the Beira Railway, signed in June by the British, Portuguese, and Southern Rhodesian Governments, to be a fair compromise. He points out, however, that the agreement envisages a problematical rail connection between Rhodesia and a West Coast port. It incorporates a clause regarding rail rates which lays down that rates to Beira shall not exceed those to other ports "in so far as direct operating costs are similar and the distances covered are the same." This, Mr. Davenport explains, has been done because any new line to the Atlantic can only be an economic success if gradients are easy and trains heavy, which would mean lower operating costs per mile than to Beira, and consequently lower rates. He considers that if the West Coast railway is built, transport that way is unlikely to be cheaper than *via* Beira except for certain centres favourably situated geographically. Beira must therefore continue to be used to full capacity in fulfilment of the undertaking to the Portuguese Government. The construction of a trunk line to the Atlantic across what is, and will probably remain, an unproductive region, presents formidable difficulties, and it says much for the future prospects of Rhodesia that, with the present high cost of railway construction, such a line should be seriously considered. Even so, as Mr. Davenport remarks, it will have to be easily graded, which will certainly tax the ingenuity of the surveyors.

Realism in the T.U.C.

THE preliminary agenda for the Trades Union Congress to be held next month show that the trades unions are seeking uneasily to adjust themselves to the new order in industry. Abolition of compulsory arbitration, at least in its present form, is urged by the N.U.R. and some other unions. Arbitration as such they rightly value, but they dislike the compulsion to resort to it (without clear principles on which to act), and their dislike seems founded on fear that even a Labour Government may use compulsory arbitration to restrict the power to strike. The resolution of the Inland Revenue Staff Federation to set up a national wages board, to include members drawn from workers' and employers' panels, "recognises that new problems of wages policy arise on account of full employment and economic planning." This seems a tacit admission, amongst others, that the amount of possible wage increases is limited, and that unions, instead of bargaining

exclusively with employers, must now ensure some sharing amongst themselves of whatever can be gained. Disappointment at the results of nationalisation is the cause of the proposal, now being considered by the T.U.C. General Council, for a joint council of the governing bodies of nationalised industries and of the trades unions concerned; this, in varying forms, seems already to have become a perennial topic. The new T.U.C. policy of flexible wages restraint seems unlikely to be abandoned; if not popular, it is at least an attempt to bridge the gap between partisanship and the responsibility incumbent upon so powerful a body as the T.U.C.

Overseas Railway Traffics

THERE was a £2,393,000 advance in operating revenues of the Canadian National Railways during June and despite a £504,000 increase in operating expenses, net revenue at £2,184,000, compared with £295,000 last year. Operating revenues for the month were £15,923,000 and expenses amounted to £13,739,000. Aggregate net receipts for the first half of the current financial year are now higher by £5,181,000 at £5,498,000 and operating revenues at £85,318,000, compare with £78,925,000 for the same period of 1949. Canadian Pacific Railway net earnings during June were up by £976,000 at £1,146,000 and at the end of 26 weeks were £2,053,000 higher, at £3,049,000. On the aggregate C.P.R. gross earnings have improved by £690,000 to £59,102,000. There were advances in railway, road motor and street railway receipts of the Victorian Railways during April, and total traffics for the month amounted to £1,721,471, or £276,573 higher than for the same month, last year. Midland Railway of Western Australia traffics for May improved by £5,286 to £36,409, and total receipts for the current 48 weeks are £23,758 higher at £345,258.

G.N.R.(I.) Financial Difficulties

THERE is no indication as yet of any easing of the acute financial position of the Great Northern Railway (Ireland). Stockholders have been informed that for the half-year ended June 30 there was a loss on working of £178,537; the fall in receipts was £62,072 and there was a reduction in working expenditure of £146,388 during the same period. It is clear, therefore, that the utmost economy is being practised by the board and management, but it is necessary to pass the interim dividends on the guaranteed, preference, and ordinary stock. A letter which has been addressed to stockholders by the company points out that it is now four years since the Government White Paper in the North announced that the G.N.R. was to be included in a transport merger and a year or more since the other major undertakings were so merged. Some 18 months have also elapsed since the principles of the Milne Report, which outlined a new future for the G.N.R., were announced to have been accepted in the south of Ireland.

Solvency a Dominant Consideration

THE board of the G.N.R.(I.) expresses apprehension lest the negotiations for the transfer of ownership of the system are being deferred "in anticipation of insolvency which would offer pretexts for taking over the company at a nominal sum." It suggests that if rumours to this effect which are circulating have no substance, practical proposals would be their most effective contradiction though in their absence the retention of solvency becomes the dominant consideration of the company. For a long while the G.N.R., expecting that reorganisation was imminent and that the rights of stockholders would be enhanced if it put service to the public before the protection of immediate financial interests, has drawn heavily on investments and cash to promote high standards in public transport. Obviously such a course cannot be continued indefinitely, and it is in the ultimate interests of all parties that the uncertainty which now surrounds an important part of the Irish transport system, both north and south of the border, should be resolved, before irreparable harm is done to the undertaking.

"North British"

THE long history of the North British Locomotive Co. Ltd. and its predecessors, coupled with the fact that motive power produced by its works is to be found on railways all over the world, are advantages which are not without their complications. Despite visits made overseas by executives of the company and the welcome which is always accorded overseas visitors at the Glasgow headquarters, it has been felt that there is room for some further link between North British Locomotive Company and its friends and customers. To help bridge the gap the Big Six Film Unit has produced a new industrial documentary film, dealing with the activities of the company, showing the processes involved in the production of locomotives and tenders, and giving a very good idea of the care and skill which goes into the achievement of the high reputation for efficiency and reliability so long enjoyed by British locomotives. There are some excellent shots of the North British works, which gave a good impression of the methods used and the machines available for locomotive building. The film cannot but enhance the prestige not only of the North British Locomotive Company itself, but also of the British locomotive industry as a whole.

Packed-Chord Timber Trestle Bridge Span

AT the annual meeting of the American Wood Preservers' Association, held in April, Mr. H. J. McKenzie, Chief Engineer, Texas & New Orleans Railroad, described the packed-chord type of trestle-bridge span as now standardised by his railway. Since 1932 it has been used to replace open-deck and ballast-deck spans and some 235,000 l. ft. have been erected. The new span consists of two timber girders, one centrally under each rail, composed of either three or four according to the weight of traffic to be carried—machined and creosoted pine timbers 1 ft. 5 in. deep and 8 in. wide. The timbers are bolted tightly together to form a composite beam 1 ft. 5 in. × 2 ft. or 2 ft. 8 in., and are carried by 14-in. × 14-in. capping timbers resting directly on the heads of six piles to form a single bent; these bents are 15 ft. apart. Each cap is protected by galvanised iron end covers and a ½-in. steel plate covering the area under and between the girders. Clip angles attached to this plate fasten the girders to the cap. The packed-chord span is cheaper, easier to inspect and repair, more resistant to fire and floods and to damage due to derailments, stronger and more rigid, and requires shorter sleepers than one or other of the other types. During their 18 years in service no packed-chord girders have yet had to be changed.

A Pack of Knaves

OF all the means devised for protecting railway compartments against intrusion, card playing seems the most subtle and effective. It trades on the Briton's dread of being considered a bad sport. Reluctance to interrupt a game of cards will send a weary traveller to stand in another carriage rather than push past the spread newspaper into a vacant seat. Some retreat with a smile of sympathetic understanding, and appear to be warmed within by the harsh answering grin they may receive. They are blind to the fact that is a grimace of triumph over a successful manoeuvre and not an exchange of friendly glances between fellow sportmen. To insist on the improvised table being temporarily lifted would be to court ostracism in a business train, and the alternative to withdrawal is to stand huddled in a meagre space inside the door, feeling like troops in a confined bridgehead, surrounded by a hostile population. For the card players have public sympathy on their side. Other means of rendering a compartment untenable can be imagined readily enough, such as playing a trombone or exercising with Indian clubs, but they would earn only execration and contempt. It is the general assumption that the card player creates a kind of sanctuary about himself that galls others, particularly duffers at cards.

Integrating Freight Services

THE statement which the British Transport Commission has issued on the integration of its rail and road freight services, the text of which appears in full elsewhere in this issue, does not suggest an immediate change in the form of these services. It is intended mainly for the guidance of members of the staff, showing how the policy may affect them, and for the trading public. Road and rail facilities will be developed according to the traffic for which each is specially suitable, but there will be no interference with the trader's freedom of choice to send goods by the method he prefers, where alternative services exist.

Any expectation which may have been entertained that the Commission's outline of its policy on integration would contain any fundamental departure from the orthodox is not borne out. There is very little in the statement which was not accepted as desirable practice before the war. The use of the word "integration" may have raised hopes that something more than the old-fashioned "co-ordination" would have been forthcoming. In fact, the statement of policy envisages merely the pursuance of the objectives of road and rail co-ordination which were accepted in principle over ten years ago. In detail there are some divergences from the original schemes discussed then, but these arise in the main from the transformation which has been brought about in the overall organisation of British transport as a result of nationalisation.

In general, the railways will continue to handle bulk traffic forming complete trainloads, and road transport the local haulage, loads out of gauge for the railways, and long hauls where the costs would be higher by rail. This is merely a rough division of function, however, and the responsibility for directing the traffic by the most suitable route will rest on the local traffic agent, unless the trader declares a preference.

The Commission is anxious to avoid dislocation or hardship to staff arising from the integration policy, and the unions will be consulted where such instances occur. Regulation of recruiting, normal wastage, and absorption of displaced staff elsewhere within the establishment should ease the effect of the scheme on employment.

The acquisition of road haulage undertakings by the Road Haulage Executive is almost complete and the Executive's fleet now totals some 40,000 vehicles, compared with the 52,000 of various types operated by the Railway Executive. The Road Haulage Executive may take over more undertakings if their operators decide not to seek the renewal of their licences.

The Road Haulage Executive will gradually take over the responsibility for providing all collection and delivery services to and from railhead, but in the large cities the transfer may not take place for three or four years. This is a point on which there may well be a division of opinion as to desirability. A good case could be made for the Railway Executive conducting its own collection and delivery services. This would give it more control over arrivals and departures at terminals, goods depots and so forth, and greater organisational unity than would be possible under the projected scheme. A common supply service for vehicles will be developed by the Road Haulage Executive, and an engineering service for overhauls and repairs will be built up, though outside resources will still be used where warranted.

The Commission forecasts a common commercial service as one of the objectives of ultimate integration of its services. This will be approached by carefully-planned experiments in restricted areas. The joint use of existing terminals by road and rail services together and the development of modern, common terminals is contemplated. The objectives and methods of integrating inland waterway services with those by rail and road are being formulated.

Much will depend on the co-operation not only of the leaders of the railway trade unions, but on the rank and file members in bringing some of the suggested developments to a successful fruition. It is appreciated by the Commission, which stresses in its statement that integration is vital to the efficiency of public transport and that

efficiency is, in the long run, the surest safeguard of employment. Equally obvious must be the fact that any large-scale economies resulting from integration must come in the form of a reduced labour bill. Probably the leaders of the principal trade unions affected are sufficiently long-sighted to appreciate this point, but it may be more difficult—as it has proved both here and elsewhere in the past—to secure the same recognition from those who are immediately affected. Not only complete redundancy but also questions on rates of pay and conditions of service must be involved.

The rates question, on which largely depends the success of the policy, is still to be settled. Probably two years have still to elapse before the general charges schemes will be prepared by the Commission and approved by the Transport Tribunal. In some instances it is possible that road and rail rates may be the same, though equality cannot be a principle. It will be recalled that Lord Hurcomb in an address last year to the Western Region Lecture & Debating Society on transport integration said that one had to bear constantly in mind the assistance which a properly-devised scheme of charges could give towards guiding traffic into channels which would yield the best result to the transport undertaking as a whole. These problems had occupied the minds of officers of the old railway companies and there had been talks with the road haulage interests, but even the experts had found it hard to devise a new scheme to supersede the complicated century-old rates structure.

London Fares Scheme Amended

IN its preliminary decision given on July 13, as recorded in our issue of July 21, the Transport Tribunal requested the British Transport Commission to submit amendments to its draft London Area (Interim) Passenger Charges Scheme, reducing the cost of early morning travel by about £1,000,000. The reasons given by the Tribunal for this decision were, first, that the scheme could be expected to yield about £1,000,000 more than was required, and, second, that shift workers should continue to be entitled to tickets at the same fares as the workmen's early morning fares and otherwise on the same conditions as obtain today. These amendments were considered at the resumed inquiry by the Tribunal on Wednesday in last week and at the end of the day Sir W. Bruce Thomas, K.C., President, announced that sufficient evidence had been given to enable the Tribunal to make a final conclusion.

Amendments submitted, which are dealt with in greater detail elsewhere in this issue, relate only to early morning traffic. While in the case of Railway Executive and London Transport railways the B.T.C. has been able to give effect to the request of the Tribunal, the application of facilities for shift workers presented a serious practical problem as regards road services. Under the proposed scheme, return tickets will be abolished for all road services, and it is contended by the B.T.C. that, were these facilities granted, there would be even greater opportunity for abuse than with the present return fare system which affects only trolleybuses and trams. Employers of labour would also be saddled with a large amount of unproductive administration work in issuing tickets authorising such journeys. Moreover, should the existing facilities be retained even in their present limited form, after the withdrawal of the trams and the substitution of buses, this would prevent the proposed integration of road services which were expected to secure operating economies of something like £200,000 a year. Therefore the Commission is asking the Tribunal for authority to retain these facilities only on the railways. Withdrawal of the facilities on road services would affect revenue to the extent of only £16,000 as compared with £63,000 in the case of the railways.

With regard to the amended early morning fares, these could not be based on any consistent rate per mile, and attention has been paid to suggestions by objectors for limiting increases which become payable to amounts con-

sidered reasonable in the light of economic conditions existing today. But at the same time it was considered essential to obtain close comparability for road and rail travel for the first 10 miles. Where distances are from 2 to 10 miles, which is the limit of early morning scales for road services, there is now proposed a flat 2d. early morning single fare, compared with 2d. for the first 3 miles and 3d. for the remaining 7 miles in the first proposals. This fare, when added to the proposed ordinary fare under the scheme, produces the early morning return scale for railways for those distances, except that odd halfpennies have been dropped at 5 and 9 miles in the rail fares so as to facilitate the mechanical issue of tickets. In general the amended early morning scale for return fares on railways is such that, subject to the treatment of the penny fractions, there is no increase over existing workmen's return fares exceeding 4d. a day or 25 per cent., whichever is the greater. For a distance of 50 miles, which is the maximum distance for which early morning return fares are issued, the new fare is 3s. 9d. compared with 6s. 3d. in the original proposals.

Southampton Ocean Terminal

THE new ocean passenger terminal at Southampton Docks, which was opened by the Prime Minister, Mr. Clement Attlee, on Monday, provides Southampton with an ocean terminal which compares more than favourably with any other in the world. Constructed at a cost originally estimated at £750,000, the building, which is 1,272 ft. long, gives accommodation under one roof for a railway station, restaurant, customs examination halls, waiting rooms, and the many other facilities needed by passengers between their arrival by ship and departure to their ultimate destinations. With the link formed between ship and building by the fully-enclosed mechanically-operated telescopic gangways, which are one of the innovations of the new terminus, passengers can pass from ship to train or road vehicle under cover.

The great length of the building compared with its width (111 ft.) presented the architects with a difficult aesthetic problem of a building, which is likely to become as familiar to travellers from America as the Statue of Liberty is to those entering New York, was to combine appearance with utility. Here the architects were helped by the fact that the first view of the building gained by the passengers on incoming ships is from the south end, and that was accordingly emphasised by the incorporation of the semi-circular feature which, rising over 110 ft., bears a reasonable proportion to the visible width.

The terminal building is a steel-framed two-storey structure supported on more than 600 piles, the framework being disposed in a series of cross-sectional frames spaced at 20 ft. intervals throughout the length of the structure. A large part of the wall is taken up by the long rows of windows and by sliding doors and roller shutters. On the east side there is a double-sided island platform capable of accommodating two trains at once. On the first floor there are two large customs examination halls and both the first and cabin class waiting rooms are over 200 ft. long by 90 ft. wide. Every effort has been made to facilitate the movement of passengers and baggage between the first and second floors, and the four reversible escalators have been designed to deal with 4,000 passengers an hour, without discomfort. There are in addition a series of 20 combined goods and passenger lifts disposed throughout the building, and special attention has been paid by those responsible for the design to the handling of heavy baggage and stowed cargo.

Much of the credit for the provision of the new ocean terminal must go to the former Southern Railway, which in recent years was responsible for raising Southampton to the position of Britain's premier passenger port, although the actual building work was undertaken by British Railways. Progress was aided indirectly by the destruction by bombing during the war of the former station and buildings built in 1911, although even before the war doubts were expressed whether the facilities for trans-

atlantic liners at Southampton were in keeping with those in France and America. In any case when the *Queen Elizabeth* took up her station in 1946 it became clear that the existing facilities were inadequate on account of the higher standards of comfort to which North Atlantic passengers were becoming accustomed and also because the post-war vexations and intricate customs, immigration and currency regulations threw a burden on officials and passengers which created delays that were the source of many complaints. Furthermore, at a time when Britain is striving to attract tourists with dollars to spend, and with the Festival of Britain arranged for next year, adequate facilities for the reception of the overseas visitors assume still greater importance.

British Transport Commission Traffic Receipts

THE traffic receipts for the principal activities of the British Transport Commission for the four-week period to July 16 exceeded those for the corresponding period of last year by £1,503,000 (or 4 per cent.), and those for the preceding period by £1,695,000 (or 5 per cent.). The improvement shown for the previous period therefore has been maintained.

Nevertheless, British Railways receipts, which are some three-quarters of the total takings of the Commission, showed, at £28,804,000, no real improvement over 1949, despite an apparent rise of 5 per cent. Passenger receipts were some 10 per cent. below last year, due to the rationing of petrol for private motoring and also to reduced public spending power, which is diverting much traffic to the cheaper motorcoach. Neither improved services nor increased cheap fares seem to have helped.

Railway freight and parcels receipts together were some 16 per cent. above those of the same period of 1949; and if the 16½ per cent. increase in rates in May is taken into account, and also increased industrial production (which might have been expected to result in considerable additional rail traffic), the results are disappointing. Coal and coke receipts rose only 18·2 per cent, despite increased production, and minerals 16 per cent. Merchandise and livestock receipts rose 18·2 per cent., which, even in the light of the rate increase in May, seems an improvement; against this, however, is the tendency of traders to rush out goods towards the end of the half-year.

	Four weeks to July 16		Incr. or decr.	Aggregate to July 16		Incr. or decr.
	1950	1949		1950	1949	
British Railways—	£000	£000	£000	£000	£000	£000
Passengers	10,322	11,504	— 1,182	54,672	58,430	— 3,758
Parcels, etc., by passenger train	2,505	2,370	+ 135	15,758	15,364	+ 394
Merchandise & livestock	7,109	6,013	+ 1,096	45,588	44,476	+ 1,112
Minerals	2,594	2,236	+ 358	16,982	16,089	+ 893
Coal & coke	6,274	5,306	+ 968	40,189	37,306	+ 2,883
	28,804	27,429	+ 1,375	173,189	171,665	+ 1,524
Road Passenger Transport, Provincial & Scottish—						
Buses, coaches & trolley-buses	3,432	3,246	+ 186	19,219	18,117	+ 1,102
London Transport—						
Railways	1,065	1,071	— 6	7,682	7,790	— 108
Buses & coaches	2,448	2,491	— 43	16,568	16,841	— 273
Trolleybuses & trams	814	845	— 31	5,723	5,904	— 181
	4,327	4,407	— 80	29,973	30,535	— 562
Inland Waterways—						
Tolls	64	50	+ 14	396	371	+ 25
Freight charges, etc.	72	64	+ 8	456	452	+ 4
	136	114	+ 22	852	823	+ 29
Total	36,699	35,196	+ 1,503	223,233	221,140	+ 2,093

London Transport receipts also decreased compared with 1949. Receipts from the Underground were very slightly below last year's, with bus and coach receipts reduced by 1·7 per cent. Without further details available it is difficult to suggest any general cause. In view

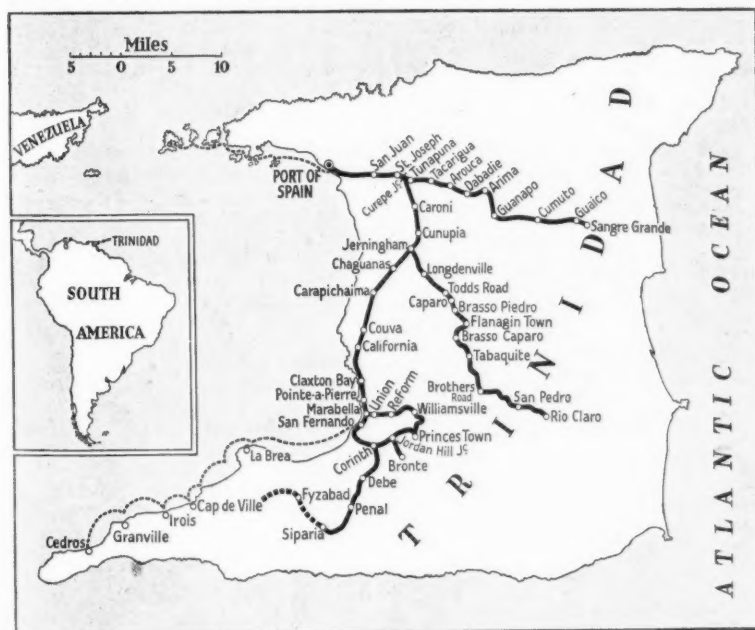
of a very similar reduction for the preceding four-weekly period, compared with 1949, of bus receipts, and of a much greater reduction (of 2.4 per cent.) in rail receipts, it seems clear that the freeing of petrol is not responsible, and reduced private spending seems the chief cause.

For the aggregate of 28 weeks, the receipts of the Commission's main services were, as four weeks previously, very slightly above the previous year's total. The British Railways aggregate for all traffics was 0.8 per cent. above that of 1949; that for passengers was reduced 6 per cent., whilst those for parcels and freight showed increases; the aggregate for coal was 7.7 per cent. above that for last year, and due almost entirely to increased production and to the rise in rates; whilst that for general merchandise and livestock, increased by only 2.5 per cent. over 1948, in general reflects the tendency, in the light of increased production, for these classes of traffic to desert the railway. London Transport receipts show the same downward trend as is seen in the comparison with last year of the four-weekly period, which points to the same causes. In inland waterways traffic the rise is 3.5 per cent., largely due to heavy seasonal traffic.

PERCENTAGE VARIATION 1950 COMPARED WITH 1949

	4 weeks to July 16	28 weeks to July 16
British Railways		
Passengers	-10.2	-6.4
Parcels	+5.6	+2.5
Merchandise & livestock	+18.2	+2.5
Minerals	+16.0	+5.5
Coal & coke	+18.2	+7.7
Total	+5.0	+0.8
Road Passenger Transport	+5.7	+6.0
London Transport		
Railways	-0.5	-1.4
Buses & coaches	-1.7	-1.6
Trolleybuses & trams	-3.8	-3.1
Total	-1.8	-1.8
Inland Waterways	+19.3	+3.5
Aggregate	+4.2	+0.9

Generally, however, the Commission's receipts reveal little that is new. They seem, if it is not too early to assess the full effects, to justify the recent increase in rail charges, but they show that little that has been done so far can retain on the railways traffic for which other means of transport compete.



The Trinidad Railways

Transport in Trinidad

IN 1945 the Governor of Trinidad appointed a Committee to enquire into the working of the Trinidad Government Railway. Its report appeared in October, 1947, and has now been published. The Committee as originally constituted, under the chairmanship of Mr. E. V. Wharton, consisted of eight members.

The Committee found that the cost of additional expenditure on bridges, track, rolling stock, and so on, to bring the railway to an efficient state would be \$1,884,950. Discontinuance of the railway was ruled out because of the burden which it would throw on the road system. Heavy expenditure, estimated at \$8,300,000, would be incurred in adapting all the roads paralleling the railway to carry the traffic now handled by the railway. The railway renders an important service in carrying heavy material for the main industries, sugar and oil. In 1946, 4,689,688 passengers and 502,160 tons of freight, including 288,375 tons concerning the sugar industry, were carried.

Proposals put forward by the railway management and recommended by the Committee include the abandonment for passenger service of the Arima—Sangre Grande section, and replacement by a bus service, complete abandonment of the San Fernando—Princes Town line and replacement by a bus and lorry service, retention of goods service only between San Fernando and Siparia, and acceleration on the main line between Port-of-Spain and San Fernando with reduced number of trains, more frequent service and retention of some stations for goods only.

The installation of a new cost accounting system is urged. Until this is done it will always be difficult, if not impossible, to establish rates based on actual costs. In the absence of such accounting the Committee was unable to recommend any particular change in the existing railway rates.

Other recommendations for increasing the efficiency of the railways include the improvement of roads radiating from the railway termini, especially those serving oilfield areas; provision of adequate facilities for the handling of heavy freight at the Siparia terminus; establishment of closer liaison between the Railway & Wharves Departments; improvement of the port facilities at San Fernando; the modification of the traction system in favour of diesel locomotives; and the operation of the railways by a Statutory Board. Proposals for the retrenchment of staff has already been put into effect and no further action is contemplated.

The Committee considers that the railway should be allowed to charge economic freight rates and should not be penalised by the present uneconomic rates enjoyed by the sugar industry. It deprecates the present practice of indirectly subsidising this industry by way of special freight rates. In its opinion, any subsidy to industry necessary in the interests of the colony's economy should take the form of a direct grant.

All the recommendations of the Committee save one have subsequently been endorsed by the Economic Adviser. The exception was the proposal for the establishment of a Central Transport Authority with executive powers responsible for the operation of all public transport. The Economic Adviser said that this would be unwise as it would not solve the problems it was intended to solve and would only act as a drag on an already deteriorating industry. The matter was considered by the Governor in Council last October, when the Council favoured the establishment of a statutory board to operate the railway but, on the advice of the Economic Adviser, did not favour the establishment of a Central Transport Authority.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Central Line Jubilee

July 24

SIR,—I was interested by your editorial comment in your issue of July 21 on the jubilee of the Central Line, which states that the change to motor coach operation took place in 1904. This date should be June, 1903. The facts are given in the complete account of the Central London Railway published by Messrs. H. F. Parshall, E. Parry and W. Casson just after that time. The complaints about the vibrational disturbances began to be received towards the close of 1900, and the Board of Trade appointed a committee consisting of Lord Rayleigh, Sir John Wolfe Barry and Professor Ewing to inquire into the matter. It reported early in 1902. The company converted three of the locomotives into geared machines and built two six-car experimental motor coach trains, by altering four of the ordinary cars. These trains were illustrated in *The Railway Magazine* for March, 1903. (The original locomotive trains had seven cars and seating accommodation for 336 passengers.) These geared locomotives and two trains were ready to run by the end of August, 1901.

When the decision was taken to do away with the locomotive, it was considered necessary still to have seven car trains, and to accomplish that Mr. Parshall designed a heavier type of motor coach, for which orders were placed as soon as possible. In the account referred to above graphs are given of power consumption and other details covering a number of days, and from these it is clear that a full locomotive hauled service was running as late as April 14, 1903, and a full motor coach service on June 8.

A Sunday service of 16 trains, two being motor coach trains, was running on May 24, and one of 16 motor coach trains on May 31, 1903. It is sometimes stated that the motor coaches were made up out of converted ordinary trailer cars, but I cannot see how this can have been so, for at least 50 cars would have had to be so changed; this could not have been done and a full locomotive service maintained in operation up to within only six weeks of the changeover. I conclude therefore that new stock was obtained to Mr. Parshall's instructions.

Yours faithfully,

T. S. LASCELLES

Bradbourne Vale House, Sevenoaks

North-East Coast Services

July 19

SIR,—I find it disconcerting to note, from the window display at Scarborough reproduced on page 54 of your issue of July 14, that the Railway Executive considers that the morning trains introduced last month between Kings Cross and Scarborough can aptly be described as fast trains. To those who remember the "Scarborough Flyer" as timed during the last few years before the war the statement that "the Scarborough Flyer is here again" is one of questionable honesty. If it be thought necessary to name a train whose performance is so modest, why call it a "Flyer"—average speed 48 m.p.h.?

The Executive has recently been congratulating itself on the introduction of more standardised timings. No doubt there are services where such timings are of value; but if long-distance timings are to be standardised, existing connections should not be unduly worsened.

Before the war a train for Scotland left Kings Cross at 1.20 p.m. and the connection reached Whitby at 7.7 p.m., latterly the times have been 1.15 p.m. and 7.12 p.m. (15 min. quicker than the "Scarborough Flyer"). Arrivals at Scarborough were an hour or more earlier in each case. There is still a 7.12 arrival at Whitby; but to catch it one must leave Kings Cross at noon or one can take the Scottish train from Kings Cross at 2 p.m. and reach Whitby West Cliff at 8.48 p.m. (51 min. slower). The change in departure time from 1.15 to 2 p.m., may or may not attract a single extra passenger on the main line; it has certainly,

I suggest, worsened the service from London to North-East Yorkshire.

The appearance of the North Eastern Region timetable has improved, but there is room for more care in its compilation—let me give three instances. The 4.5 p.m. York to Scarborough shows no Whitby connection; there is, in fact, a connection due at Whitby West Cliff at 6.10 p.m. Secondly, the Whitby arrival of the 6.30 p.m. from York is given at 9.32 in the York-Scarborough table, which is correct, but there is an arrival at West Cliff at 8.48. Thirdly, six trains a day are shown as calling at Ampleforth, closed on the day when the timetable came into operation.

Yours faithfully,

EDWARD BAGSHAW

Woodview, The Warren, Radlett

Integration

July 21

SIR,—Your review in your issue of June 30 of Mr. Oscar Hobson's articles in the *Spectator* leads me to make some remarks. I hope it will not be forgotten that Mr. Hobson is an uncompromising opponent of nationalisation and although nationalisation of transport is an accomplished fact, such gentlemen as he are still hoping to undermine the provisions of the Act. For without integration, nationalisation will be a dismal failure and the purpose and spirit of the Act will have gone. Ultimately, road transport would be handed back to private enterprise and the Commission will be left with a system of derelict railways.

Mr. Hobson is concerned that traders shall have free choice between road and rail transport, but if goods and passengers are carried cheaply and efficiently does it matter tuppence how they go? What Mr. Hobson really means is that, at any cost cut-throat competition between road and rail must be maintained. This will meet with the full approval of some short-sighted traders, many of whom take greatest care that there is little or no competition in their own sphere. During the war, many products came under temporary price controls and a clamour has been raised for the removal of such controls. The rise in the cost of transport since 1914 has been ludicrously small as compared with the rise of commodity prices, and every increase is subject to most vigorous and determined opposition at public tribunals. Never was an industry so rigorously price-controlled as transport.

The unpalatable fact is that the cost of transport is and always has been too low and users have reaped an apparent advantage. Before the 1914 war, railways were, generally speaking, never very profitable either to the owner or employees. Then came the impact of road competition. This form of transport was and, despite tinkering legislation, still is, largely subsidised by the provision of free tracks and signalling, and was able to undercut the already low transport charges with disastrous results. Those of us who have worked on the railways during the last third-of-a-century know the embitterment that comes of there being "no money in the kitty." There were the use of poor, obsolete equipment; nothing much to spend on research or modernisation; bad accommodation, both staff and public; and a general air of decline and frustration, apart from the disaffection of the staff when stagnation and penury seemed the normal lot for railwaymen. I have said above that the benefit of super-cheap transport was only an apparent advantage to the users; what they got was a cut-price, cheap-jack system that would have been dear at any price—and this partly subsidised from rates and taxes, and low pay for workers in the industry.

We in the industry hoped that nationalisation would end this sorry state of affairs and that ultimately there would arise a fully-integrated transport system with uniform charges regardless of whether road or rail was used. Such charges would still be subject to the scrutiny of

Parliament, but surely no responsible person would suggest that such charges should be less than enough to cover all legitimate but not extravagant costs and sufficient to bring the standard of living of the workers in the industry up to the level of that in other industries. Then the public would reap the real advantage, an efficient and happy transport system which would be a pleasure to use and a satisfaction to own.

Yours faithfully,

ERIC E. SAVAGE

77, Sundale Avenue, Selsdon

Railway Efficiency

July 1

SIR,—May I thank "B.J." for his interesting letter in your issue of June 30, and you for publishing it and the numerous others on this subject. There has been a real need to clear up the misunderstanding which persists in the matter of railway operating statistics. Correspondence strays from the original ideas which inspired it, and there is a tendency to expect that every reference to statistics shall be an encyclopædic dissertation on every aspect and component of every statistic quoted.

In writing for your column, your correspondents are entitled to assume at least a working knowledge of the British Transport Commission statistics which, with the clear explanatory footnotes which are now published, leave no room for doubt about the facts. Explanation of the facts and reasons why one country does not compare absolutely with another are perfectly legitimate, but they do not invalidate the facts themselves.

My reference to average wagon load was for the purpose of pointing out that a high railway officer stated that a figure I had used was wrong, and he quoted one which he said was right. Both are right and both recorded in official statistics. He described me as tendentious because I had quoted one instead of another. He did not mention that both were official, and my point was: Did he know? "B.J." questions me on my opinion of the throughout wagon-load, which I say is obviously the more accurate, not merely for the reason he indicates, but for a variety of reasons, among them, that it represents the use of wagon-capacity-in-movement, and indicates the "average (weighted by distance) of all wagons loads hauled" (*vide* page 381, footnote, 1948 B.T.C. Statistics). It is not the same statistic as the average starting load figure and is not intended to be. It does reflect, though differences do not represent, change of load *en route*.

This correspondence began with a letter on the extremely wide difference between U.S.A. net ton-miles per train

engine hour and the U.K. figure (19,153: 1,400 in short tons). Some of the difference is explained by different methods of calculation, some by different conditions, none of which explain more than a fraction of the enormous gap: some, indeed, widen it. I have already dealt with length of haul and have nothing to add or subtract. As to density of traffic, in itself it means little more than that traffic is available. What matters is just how it is shaped into train loads. A density of 250,000 tons to the route mile over a distance of 50 miles can still show a poor average net ton miles per train engine hour (1,250) if it is hauled in 125-ton lots per train at 10 m.p.h., whereas a density of 250 tons per route mile hauled in one train at 60 m.p.h. would yield 15,000 net ton-miles a train engine hour.

I think you will agree that this correspondence has been more than justified. It has disclosed a great need, in the public interest, for enlightenment on the vital facts of railway operation. Despite this, there has not been a murmur from the British Transport Commission, or the Railway Executive, or a railwayman, though as far as I know "B.J." may be.

Yours faithfully,

FREDERICK SMITH

65, Hallowell Road, Northwood

British Railways Finance

July 24

SIR,—In his letter "British Railways Finance," in your issue of July 21, Mr. Peter Collins does not appear to appreciate that road operators, too, have had to face and contend with not only increased cost in vehicles, spares, tyres, and labour, but in addition have an unfair burden in purchase tax on vehicles and a crippling tax on petrol and fuel oil, as well as road taxes. It would be totally unfair to increase taxation on the road operator, or for the Exchequer to bear the cost of railway track maintenance, which would be an additional burden on the general public.

The solution to enable the railways to compete with the road operator lies with the railways, and I would suggest that the Executive should reorganise its staff control efficiently as a first measure. It is up to the Railway Executive to operate its business with the same efficiency and economy as the road operators, and then it will be able to reduce its charges, both for passenger and goods traffic, to compete with road transport charges and service.

Yours faithfully,

R. LINFORD

8, Culcheth Lane, Manchester, 10

Publications Received

Directory of Railway Officials & Year Book, 1950-1951. London: Tothill Press Limited, 33, Tothill Street, Westminster, S.W.1. 8½ in. × 5½ in. 640 pp. Price 30s.—With the rapidity of political and economic changes in many parts of the world, the contents of this volume change from year to year to a greater extent than at any previous time in its history. All the entries for Great Britain have been re-cast, and the various Executives of the British Transport Commission are shown on a consistent basis. This has involved re-arrangement of the Regions of British Railways (now shown alphabetically) so that departments appear in the same order under the respective Regions, and, as far as possible, officials of comparable rank are shown with every Region. A revised map has been prepared of British Railway Regions as adjusted on April 2, 1950. The entry of the Road Haulage Executive has

been revised on the basis of the divisional organisation now in operation, and details have been eliminated of the former limited company structure that was adopted as an interim measure. Changes abroad have involved new entries for Israel, Jordan, and the Saar, and extensive revision in respect of Argentina, Germany, India, and Pakistan. The table showing the principal electrically-operated railways has again been revised extensively.

Additions to the year-book section include a table of London consulting engineers of overseas railways, and one listing named British express trains. The new British locomotive headlamp codes, introduced on June 5, 1950, are also shown. The section formerly entitled Major Developments in Locomotive Design has been revised and is now called Steps in Locomotive Design. No Ministry of Transport statistical returns of railways in Great Britain have been issued since those for 1947; the B.T.C. however has prepared

statistics specially for this volume, covering British Railways but excluding London Transport railways.

The up-to-date information contained in the Directory will enable railway officers and others to keep in touch with the staff of railways in other parts of the world for the exchange of information on developments in all spheres of railway activity. The rapid changes now taking place make more than ever necessary some conspectus of information regarding the world's railways, and nothing more comprehensive than this volume can be found within the scope of 600 pages.

France, Land of Variety.—A brochure with well-reproduced coloured and half-tone illustrations of French city and country scenes is published by the French National Tourist Office, and obtainable from its office at 179, Piccadilly, London, W.1. With the brochure are road and tourist feature maps of France.

THE SCRAP HEAP

Shedding the Load

The driver of a passing train saw a fire in a Tunbridge Wells potting shed. The driver told a postman. The postman told the police. The police told the fire brigade. The potting shed was burned to the ground.—*From the "Sunday Pictorial."*

Wrong Address

In the past week I, grey-haired and middle-aged, have been addressed as "My pet" and "Dear" by two separate members of British Railways staff. Is there anything really wrong with "Madam" as the correct form of address for use by civil servants to the public they serve?—*From the "Daily Mail."*

Earned Praise

May I congratulate the two smart girls on the tea trolley at Victoria Station?

The tea they served so politely was tea, and everything about the trolley was spotlessly clean.

So much has been said about the shortcomings of British Railways catering that it was a nice surprise to be so pleasantly served.—*From a letter to "The Evening News."*

An Elaborate Bridge Ornament

The photograph reproduced below shows one of the elaborate ornamental devices which embellish the former L.C.D.R. bridge at Blackfriars.

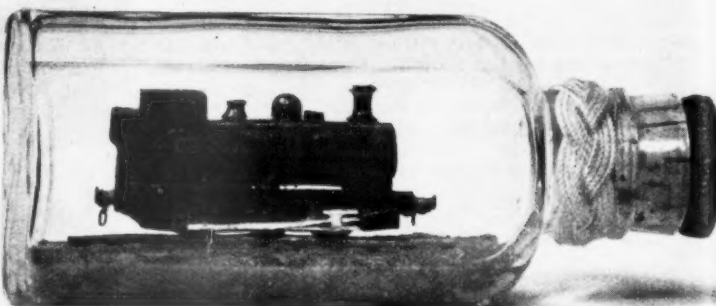
The design incorporates a slightly modified version of the L.C.D.R. coat-of-arms surmounted by the letter "V" over which a crown appears. The "V" and crown were, presumably, intended to commemorate Queen Victoria, in

whose reign the bridge was built. Superimposed garters bear the date of construction (1864) and the L.C.D.R. motto ("Invicta").

There are two separate railway bridges at Blackfriars, besides the adjacent road bridge, and these ornaments appear on the more westerly of the two

A "Bottled" Locomotive

A correspondent has sent us a photograph, which is reproduced below, of a model of a Western Region "1366" class outside-cylinder 0-6-0 tank locomotive which he has "bottled." He carved the engine out of American white wood with a knife made from a hacksaw



Model of a Western Region 0-6-0 tank engine in a bottle

[Photo]

[R. N. Rickett]

railway bridges. In all, there are four of them, one on each side of the piers on the north and south banks. They are about 25 ft. high.

Vandalism

A determined effort has been made to improve the standard of cleanliness of coaching stock which has been largely successful.

There is, however, one serious cause of discomfort to passengers which is very difficult to remedy. This is the persistent and widespread vandalism carried out by a small section of the public.

They smash light bulbs, remove fittings, carve the woodwork, slash upholstery, and smash windows. Cases have also occurred of coaches having to be withdrawn from service less than a month after coming new from the works. Not long ago a complete train was wrecked by hooligans while in a siding.

If passengers noticing any such acts of vandalism would report them immediately, they would not only be helping to diminish the annual financial loss made by the railways, but would also be safeguarding their own comfort.—*Roger J. Sellick in a letter to "The Daily Telegraph."*

blade. The chimney, dome, and safety valve were turned from boxwood and the buffers from a plastic knitting needle. The whole job was made and painted outside the bottle, and assembled and glued inside in the following order: colour putty ballast, track (in two longitudinal sections), frame and motion (in two sections), cab and bunker, boiler, safety valve, dome, and chimney.

Southampton Ocean Terminal

(Opened at Southampton on July 31) Close by, tradition tells us, King Canute Disastrously endeavoured to dispute With mighty ocean; mankind, wiser grown, Has learned to link its powers with his own.

Progress provides fresh problems, day by day; New visions rise and old dreams fade away. The transatlantic giants have outgrown The scarred and weathered walls of wood and stone.

This stately edifice, this mighty gest Enshrines the homage due the honoured guest; May countless thousands, moved by myriad trends, Pass through its portals to become our friends.

As distance contracts understanding grows And, smoothly as the four-fold tide-stream flows Along Southampton Water, may there come To every visitor a sense of home.

A. B.



An ornamental device erected on Blackfriars Bridge by the L.C.D.R. in 1864

[Photo]

[D. J. W. Brough]

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

TASMANIA

Increase in Rates

Increases in railway rates took effect on July 1, covering minerals, 33 per cent., coal 25 per cent., wool 20 per cent., timber and classes 1 and 2 and miscellaneous goods 10 per cent. No increases are to be applied on super-phosphates, lime, agricultural produce, firewood and pulpwood, petroleum products, asbestos, cement products, livestock, or class three goods.

The Joint Parliamentary Committee which enquired into the working of the railways last year expressed the view that the rates should be placed on an economic basis and that the railways should not be required to carry goods at a loss.

During the recent election campaign the Premier, Mr. Cosgrove, stated that the Labour Party, which he leads, considered that if all rates were increased to an economic level heavy financial burdens would be placed on primary and secondary industries, affecting the capacity of the State to produce and market their goods at competitive prices.

ARGENTINA

Winter Timetables

The winter timetables are now in force on all railways. The General San Martín Railway is maintaining its international service to Chile twice weekly with the express "El Libertador." To Mendoza and San Juan there are the day expresses "El Cuyano" daily and "El Sanjuanino" weekly, as well as the sleeping car train "El Zonda" twice weekly. The south of Mendoza is served by "El Nihuil" twice weekly and "El Sur Andino" once weekly. The motor coach services previously terminating at Colonia Alvear have been extended over the new connecting line with the Sarmiento Railway to Bowen station on that system.

On the General Roca Railway, the Bahía Blanca service consists of a daily sleeping car train and four day trains per week, as well as the 6½-hr. diesel express "Huemul." The Mar del Plata line has a daily stopping train, and a day express and a sleeping car express at weekends. Necochea is reached by three day and four night trains per week. There are three through trains per week between Buenos Aires and San Carlos de Bariloche, and eight between Buenos Aires and Zapala. The ex-Rosario-Puerto Belgrano line is served by two sleeping car trains per week.

The General Mitre Railway has not changed its timetable, but has eliminated the summer tourist trains between Buenos Aires, Rosario, and Córdoba. A new departure is a semi-fast sleeping car train to Santiago del Estero, connecting with a road service to the spa of Río Hondo. Apart from this train, Santiago del Estero and Tucumán are served

by the air-conditioned "El Tucumano" twice weekly, the sleeping car express "Estrella del Norte" also twice weekly, and a pick-up train three times per week.

On the Córdoba line there are the daily sleeping car express "Rayo de Sol" and the day express "El Serrano" five days a week. Between Buenos Aires and Rosario there are four expresses daily, one four days a week, and one on Saturdays only. Santa Fé has a sleeping car express six days a week and a motor coach connecting with the Buenos Aires-Rosario expresses daily. To Río Cuarto there are 12 trains a week as well as the diesel train "El Gaucho" twice weekly, which also makes a weekly trip between Buenos Aires and Río Tercero.

The principal main line services of the Sarmiento Railway are three sleeping car trains a week to Colonia Alvear, three to Telén, and six to Toay. On the General Belgrano Railway the international service to Bolivia is maintained once weekly and that to La Quiaca three times a week. There are ten trains a week to Tucumán, two via Santa Fé and eight via Córdoba. To Córdoba there are 14 trains a week. The Córdoba Hills are served by the daylight diesel express "El Capillense" three times a week. To Catamarca there are three trains a week, and to Resistencia 11, five via Añatuya and six over the ex-Santa Fé line. The Northern Transandine line continues to have a weekly train to Socompa and another to San Antonio de los Cobres.

The General Urquiza Railway maintains its weekly international service to Paraguay with the express "El Guaraní." Concordia has a daily service with the trains "El Gran Capitán" and "Sargento Cabral." Posadas has six trains a week and Corrientes three.

TURKEY

Orders Placed in Germany

The State Railways have placed large orders for railcars and other rolling stock with firms in Western Germany. These orders comprise 16 three-unit diesel-electric railcar sets valued at DM. 19,000,000 (approximately £1,616,000). The power equipment of the railcars is to be supplied by the M.A.N. works (Maschinenfabrik Augsburg-Nürnberg) which will also be responsible for the bodywork of a number of the units. The bodywork for the remainder is to be shared between Düsseldorf Waggonfabrik, Westwaggon Köln-Deutz, and Maschinenfabrik Esslingen.

An order for 30 composite first and second class coaches, 75 third class coaches, and 15 luggage vans, to a total value of DM. 14,000,000 (about £1,190,550) has been distributed among Westwaggon Köln-Deutz (Mainz works), Waggonfabrik Uerdingen, Wegmann, Gebrüder Credé, Waggonfabrik Heidelberg, and Linke-Hoffmann, of Brunswick. In addition, Waggonfabrik Rathgeber secured an order for 72 re-

frigerator wagons, mainly bogie type, to the value of DM. 3,000,000 (about £255,100), and an order for 30 bogie high-capacity goods wagons to the value of approximately DM. 1,000,000 (approximately £85,035) was shared between Talbot, of Aachen, and Krupp-Lowa, of Essen.

SWITZERLAND

Rhaetian Railways in 1949

The accounts of the Rhaetian Railways for 1949 were adversely affected by falling receipts. Although the number of passengers carried, 5,500,477, was 1.9 per cent. higher than in 1948, passenger receipts, totalling fr. 10,820,000, were 3.6 per cent. below 1948. The decrease has been due mainly to further concessions in fares granted (on the model of those introduced towards the end of the year under review and mentioned in our issue of January 27, 1950), and to the decreased sale of regional holiday and sports season tickets. This decrease is reported to be the result of currency restriction limiting the stay of foreign visitors.

Luggage traffic, at 6,711 tonnes, was 11.3 per cent. lower than in 1948. Goods traffic decreased by 14.8 per cent. to 347,552 tonnes from 408,269 tonnes in the preceding year. Luggage, goods, livestock, and mail receipts totalled fr. 7,810,000, 10 per cent. lower than in 1948. The decline in timber traffic, one of the mainstays of the railway, was particularly heavy.

Despite the increase in the number of passengers, the passenger-mileage decreased from 114,031,735 to 113,803,521. Average goods traffic miles decreased to 22½ miles from 24½ miles in 1948. Total working receipts amounted to fr. 19,720,000 (fr. 20,990,000). The working expenditure was slightly reduced to fr. 19,140,000 (fr. 19,240,000), but the working surplus dropped heavily to fr. 580,000 from fr. 1,750,000 for the preceding year and from fr. 3,800,000 for 1947.

The grand total of receipts was fr. 20,260,000, and expenditure totalled fr. 20,010,000. Wages, salaries, social services, and materials absorbed fr. 16,390,000, depreciation fr. 2,429,240, and capital costs fr. 1,190,000. The profit and loss account closed with a loss of fr. 2,293,095.

FRANCE

Laroche-Dijon Electrification

All traffic over the 97 miles from Laroche-Migennes to Dijon is now handled electrically, but the new Co-Co electric locomotives have not been introduced into regular service, pending further experiments and adjustments to improve their riding qualities. Trains are being handled by the 2-Do-2 express and Bo-Bo mixed-traffic classes.

Southampton Docks Ocean Terminal

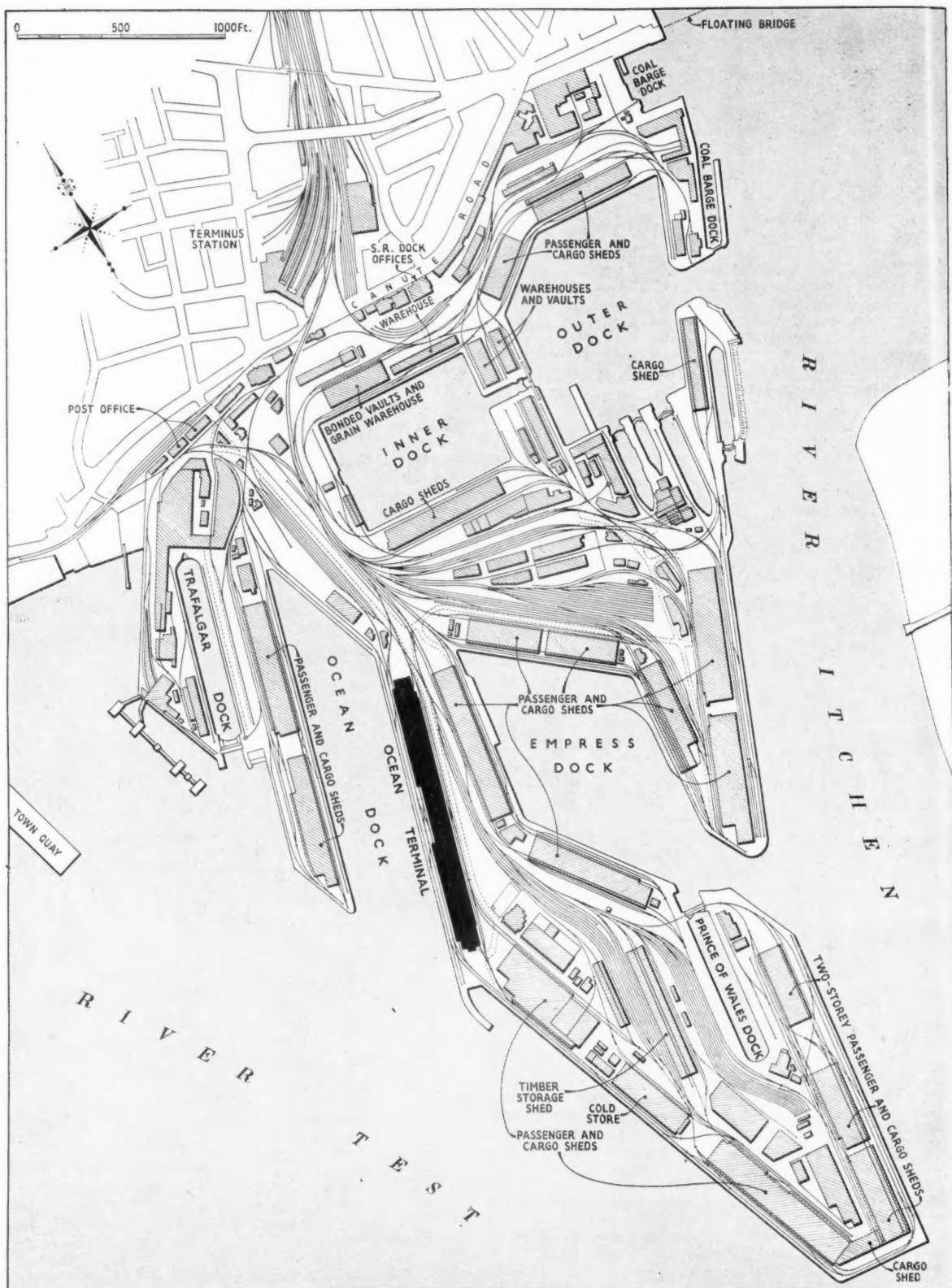


Diagram of Southampton Docks, showing the central position of the new Ocean Terminal

Southampton Docks Ocean Terminal

Quayside building providing undercover link between ship and train and complete passenger and Customs facilities under one roof

THE new ocean passenger terminal at Southampton Docks, which was opened on Monday by the Prime Minister, Mr. Clement Attlee, is the finest of its kind in the British Empire, and probably in the world. It allows all the formalities connected with arrival and departure to be completed in the one building, and passengers can pass direct from liner to train or car while remaining under cover. The terminal is a two-storey building, and passengers disembark direct on to a balcony on the first floor and then pass through large waiting rooms into halls where customs examination and immigration formalities are carried out. They then descend to the ground floor where the boat trains for London, or their cars, are waiting. The waiting rooms, which incorporate facilities for refreshment, are in the middle of the building and the customs examination halls at each end. There is also a sightseers' balcony on top of the building.

The overall length of the building, excluding the semi-circular feature at the south end, is 1,272 ft. 6 in., the width over the outside walls is 111 ft. 6 in. at ground level and 94 ft. 6 in. at first floor level, and the general height from quay to main ridge is 53 ft. 7 in. Advantage was taken of the fact that the first view of the building from incoming ships is from the south end, and this was accordingly emphasised by the incorporation of the semi-circular feature, the height of which, to top of flagstaff, is 110 ft. 6 in. On the quay side, the functional

separation of the waiting rooms from the customs halls was emphasised by the construction of an enclosed verandah at first and second floor levels, whereby this part of the building was made to stand out from the remainder.

Steel-Framed Structure

The terminal is a steel-framed structure supported on piled foundations driven on the Rotinoff system, the majority of the piles penetrating about 35 ft. where they rest on a bed of ballast overlying the greensand formation. A total of 628 piles of 17½ in. to 20 in. dia. were driven to support the building and adjacent transformer house. The steel framework consists of a series of cross-sectional frames at 20 ft. 2 in. intervals throughout the length of the structure. At the centre of the building on the west side a longitudinal plate girder 6 ft. 3 in. deep and continuous over three spans of 80 ft. 8 in., 100 ft. 10 in. and 80 ft. 8 in. respectively, carries the external balcony over the scissors crossing whereby rail connection is provided between the rail tracks inside and outside the building.

The stormwater disposal system is wholly concealed from external view of the buildings. The island platform is constructed of pre-cast concrete units of standard manufacture. A large part of the walls of the building is taken up by windows, sliding doors and roller shutters. The balance of the walling is of pre-cast 4 in. thick concrete slabs faced on the outside with a composition

of fine Portland stone aggregate. There is an inner 4 in. wall of Lignacite building blocks separated from the outer by a 2 in. cavity, to which it is secured by galvanised steel wall ties. The upper floors throughout the building are constructed of pre-cast reinforced concrete hollow Bison flooring units, surfaced in granolithic. The windows generally are of galvanised pressed steel welded construction, but aluminium glazing bars have been used for the long runs of roof glazing. The pitched roof is covered with asbestos cement combined sheeting giving two thicknesses of material with a flat surface to the soffit and a ribbed finish externally.

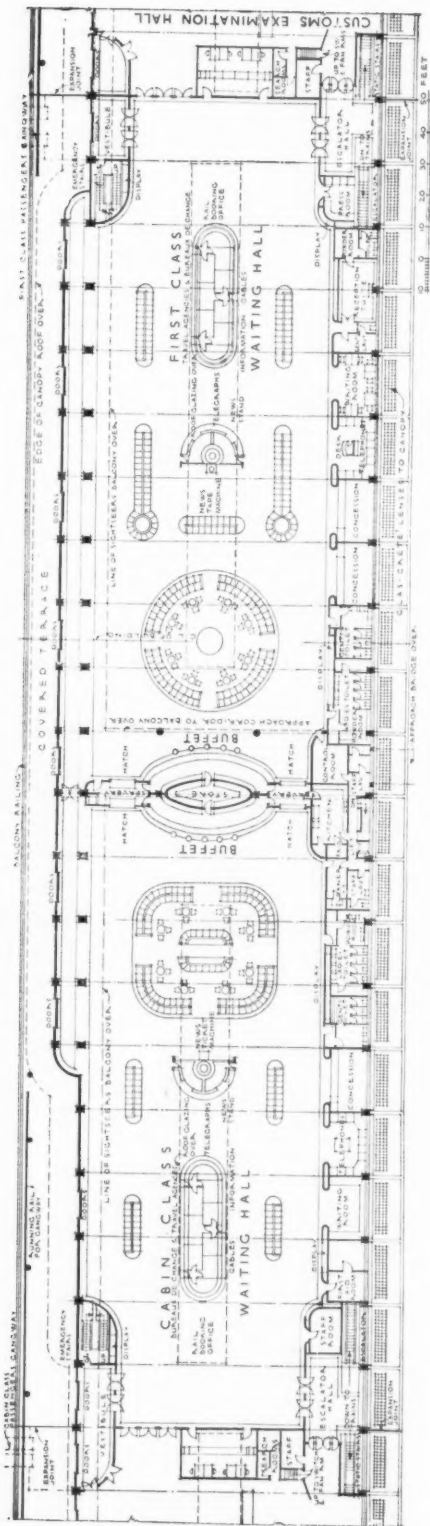
On the east side of the ground floor the outermost line of columns runs the length of a double-sided island platform, capable of accommodating two boat trains at a time. To minimise the obstruction on the platform from the building itself, the closing of this hall, when the building is not in use, is effected by a bank of 37 roller shutters.

The shutters, each 17 ft. 2 in. wide, are of the normal hand-operated type, but mobile power units are provided, with flexible driving shafts capable of being clutched into the winding sockets of the shutters. The eastern side of the platform is covered by a reinforced concrete canopy 1,058 ft. 8 in. long, projecting 11 ft. from the side of the building, with 1,150 9 in. dia. glass lenses cast into the 4 in. thickness of the barrel. Two expansion joints are provided in the length of the building, one at each of the junc-

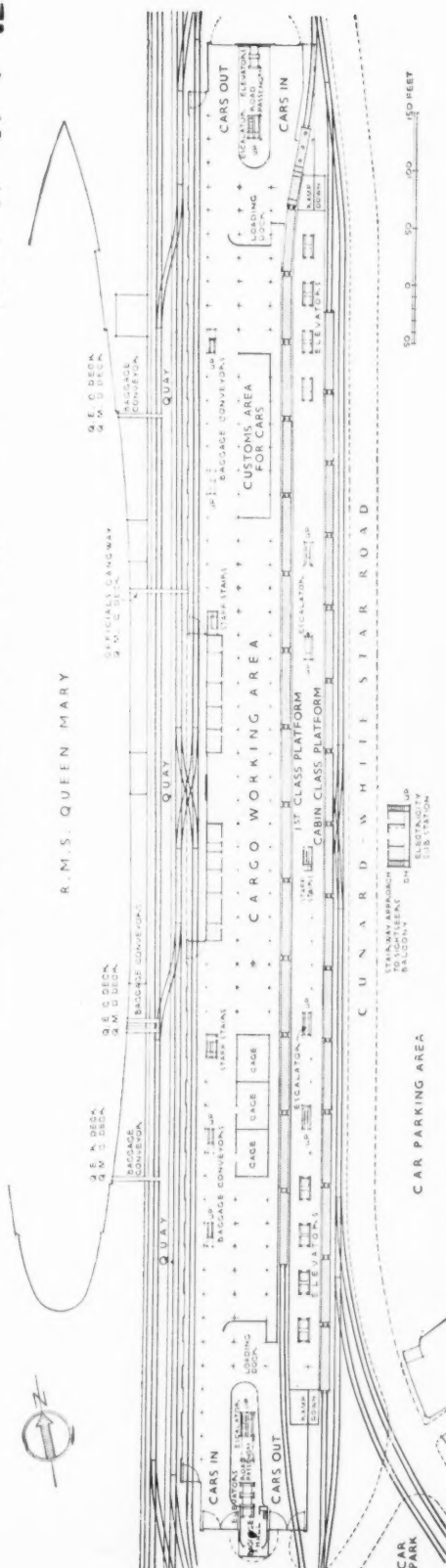


The new Ocean Terminal building, viewed from the south end

Southampton Docks Ocean Terminal



A detail plan of the waiting halls on the first floor



The layout of the ground floor which includes an island platform for accommodating two full-length boat trains at once. Sixteen lifts and two escalators connect this platform with the first floor. The two smaller island platforms at the ends of the building are for passengers travelling by road

tions between the waiting halls and customs halls.

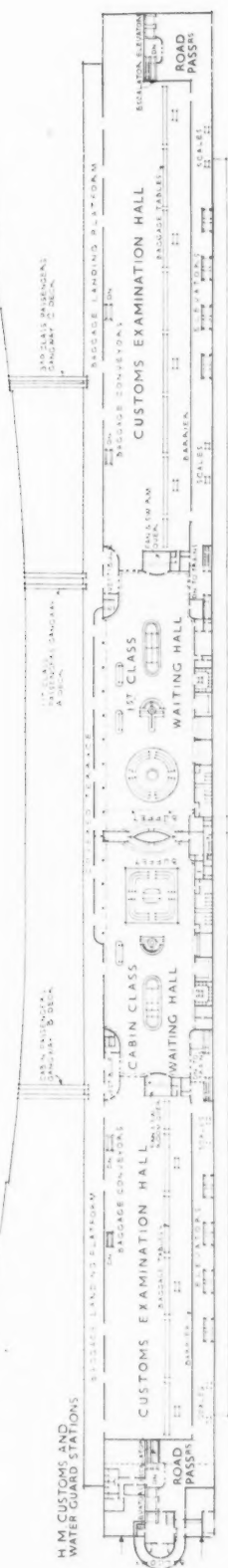
Gangway Assemblies

An important feature on the western side is the three twin gangway assemblies (described in detail in our issue of July 7, 1950) which travel on rails in the first floor balcony. Each assembly comprises a turret carrying a pair of vertically revolving sponsons to which the gangways are attached through horizontal trunnions. Power is provided by an electrically driven hydraulic pumping unit which is built into the turret structure.

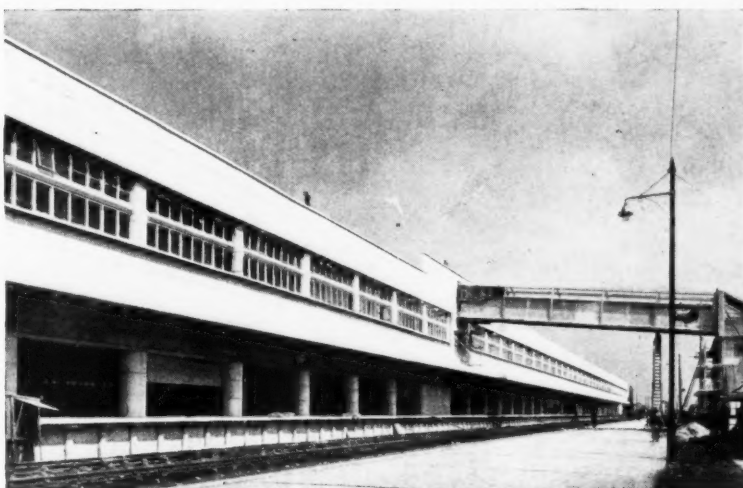
Each gangway is telescoped in two sections, the outer end sliding into the inner end to allow for variations in the position of the ship's shell doors caused by changes in tide level. The telescoping movement is effected by means of endless roller chains running in the sides of the shore section and to which the outer

seers' balcony. A ground floor central switchboard is provided to enable the terminal staff to control all supplies to the building, as the substation outside is accessible only to the electrical engineer's department.

The conveyance of passengers and their baggage between the ground floor and the first floor is facilitated by the provision of passenger escalators, combined goods and passenger lifts and inclined baggage conveyors, conveniently situated throughout the building. Four reversible passenger escalators have been provided, two on the railway platforms for train passengers, communicating direct with the vestibules of the waiting rooms above, and two others at the extreme north and south ends of the building for passengers travelling by road. The capacity of the escalators has been arranged to deal with 4,000 passengers per hour, without discomfort, on the arrival of a boat train.



Plan of first floor showing positions of Customs and waiting halls



Rear view of Terminal building, showing bridge allowing visitors to reach the sightseers' balcony without interfering with normal passenger arrangements

or ship section is connected by detachable grabs. Detachment of these grabs is automatically effected by the weight of the gangway coming on the hooks which engage with the threshold of the ship's shell door and at the same time the hydraulic pressure in the opening-luffing mechanisms is released by a Solenoid operated release valve so that the gangway is immediately free to follow any movement of the ship. In this condition the gangway will not respond to any operation of the controls except that of upward luffing, which is the first movement required to detach it from the ship.

Electrical Installations

For electrical power and lighting services the new terminal is served from a separate external transformer substation situated on the east side of Cunard White Star Road. The substation premises form part of a composite building giving access to the sight-

The 20 combined goods and passenger lifts installed are disposed in pairs along the railway platform and the car loading platforms. They communicate between the two floors only and have the same vertical lift as the escalators. At all stages, special consideration has been given to the handling of heavy baggage and stored cargo, and conveying this to and from the hold of the ship and the customs examination halls on the first floor.

A comprehensive sound reproduction installation has been provided, with eight separate circuits. In the case of the loudspeakers in the first and cabin class waiting halls special attention has been paid to avoiding stridency. That has been achieved by using a larger number of speakers than usual but at much reduced output.

Lighting a building of this design raised several interesting problems, and it was decided to treat the ground floor, customs halls and waiting halls as



The terminal building viewed from the south-east. Two boat trains can run alongside the island platform at once, one inside the building for first class passengers, and one at the outside platform, seen on right, for cabin class passengers

separate entities. Direct tungsten lighting has been used for the area intended for large handling and, as the maximum available mounting height is compara-

tively small, a spacing of 300-watt lamps in reflectors at roughly 20 ft. intervals in both directions give the desired illumination of 4 foot-candles at floor level.

To preserve the contour of the roof so that the customs halls retained their proportions at night, standard five-foot 80-Watt low-tension fluorescent tubes in vitreous enamelled reflectors have been used, supported on special steelwork attached to the purlins. This arrangement follows the slope of the roof instead of the more usual horizontal suspension. The illumination has been designed to give an intensity of 12 foot-candles at the customs benches.

In the first floor waiting rooms indirect lighting by means of high tension cold cathode fluorescent tubes concealed in suitable cornices has been used, and consists of two lines of warm white and one line of amber tubes designed to give an illumination of 7.5 ft-candles and a restful colour to the surroundings. The total number of these tubes is 4,500 with a loading of 210 KW.

The cargo working area on the ground floor and the customs halls on the first floor are not heated, but all office accommodation and the waiting rooms are heated electrically. The waiting hall

heating is combined with the ventilating system by means of heater banks in the main ventilating trunking. The total heating load for the waiting halls is 733 kW. and the total for loading 25 h.p.

The Waiting Halls

In the first class waiting hall, which is 221 ft. long, 90 ft. wide and 22 ft. high, the general decorative scheme for the halls embraces four timbers. The main surfaces are in Canadian wavy birch, the rich cream of which contrasts attractively with the other three woods, Canadian burr maple, sapelli and eucalyptus. An important feature of the decorative scheme is the fibrous plaster stepped troughing to the ceiling, which contains the concealed lighting already described, and is finished in a matt warm cream colour. The buffet bar at the south end is fully equipped for kitchen accommodation, refreshment services to each.

On the road side an escalator hall leads to the railway platforms and car parks, and in this hall there is also a reception suite for important personages. On this elevation also are the telephone rooms, concessions, banking facilities, and waiting space, all finished in similar woods to the main hall. The two main central features are the administrative counter, which includes rail bookings, hotel reservations, cables, telegraph and travel association facilities and the island news kiosk. The seating in the hall is of the island settee type.

The cabin class waiting hall is 20 ft. shorter than the first class, and the general treatment of the halls is in teak and walnut. Accommodation and facilities are largely similar to those provided by the first class hall except that there is no private suite.



The eastern face of the island platform, with 1,000 ft. canopy roof

The catering arrangements are operated by the Hotels Executive, and consist of two cocktail bars at which embarking and disembarking passengers can obtain cocktails, aperitifs, wines and spirits, cigars, cigarettes, and confectionery; and two smaller bars for the service of light snacks, tea, and coffee. Close at hand is the service kitchen and store for the preparation of food.

The decorative treatment is in veneered plywood with the counter tops in black Wareite and all metal work and signs in silver bronze. The back fittings are decorated with peach coloured mirrors illuminated with concealed overhead lighting. The floor is of korkoid, the tables in sycamore with formica tops and the furniture is in hard wood, polished to match the veneers of the walls.

The following firms acted as contractors and sub-contractors:

Switchgear ... Allen West & Co. Ltd.
Public address system ... Arden Acoustical Laboratories Limited
Constructional steelwork ... Cargo Fleet Iron Co. Ltd.

Customs tables ... Frederick Braby & Co. Ltd.
Electric clocks ... Gent & Co. Ltd.
Lifts ... Hammond & Champness Limited
Escalators ... J. & E. Hall Limited.
Furnishings, etc.—waiting halls ... Maple & Co. Ltd.

Sub-contractors to Maple & Co. Ltd.

Supporting steelwork—waiting halls ... E. Webb & Co. Ltd.
Internal lighting—waiting halls ... Phoenix Electrical Co. (London) Ltd.
Ventilating and heating—waiting halls ... Viaduct Heating & Ventilating Co. Ltd.

Baggage conveyors ... Sovex Limited
General building ... Staverton Builders Limited

Sub-contractors to Staverton Builders, Limited

Plastering and granolithic floors ... A. C. V. Telling (Southern) Limited
Terrazzo paving ... Art Pavements & Decorations Limited
Water-proofing to r.c. canopy ... Bruce Martyn Limited
Flush doors ... Bryce White & Co. Ltd.
Floor and wall tiling ... Carter & Co. Ltd.
Pre-cast floor slabs ... Concrete Limited
Steelwork and balustrades ... E. C. Blackmore Limited
Window glazing ... Faulkner Greene & Co. Ltd.
Gutters and architraves ... G. A. Harvey & Co. Ltd.
Crush barriers, railings, etc. ... Gardiner, Sons & Co. Ltd.

Quayside doors ... Goulding & Ansell Limited
Glazing—south feature ... Haywards Limited
Windows ... Henry Hope & Sons Ltd.
Roller shutters ... John Booth & Sons (Bolton) Ltd.

Plumbing ... Joyce Bros. Ltd.
Internal wall blocks ... Lignacite (Fordingbridge) Limited

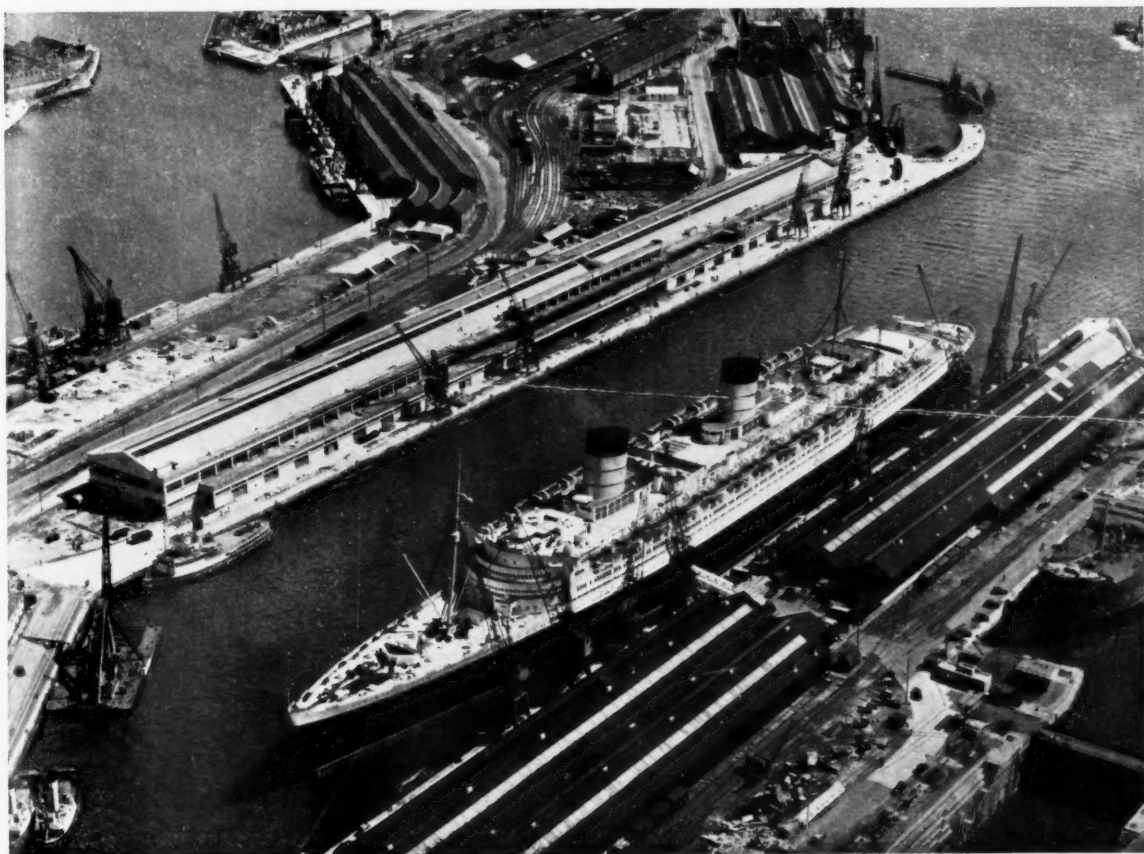
Roofing ... Roberts Adlard & Co. Ltd.
Asphalte floors ... Rock Asphalte Co. Ltd.
Faience to south end tower ... Shaws Glazed Brick Co. Ltd.

External and customs lettering ... Southern Signs Company
Illuminated direction signs ... Straight-Lite Reflectors Limited
Smoke extraction plant ... Supervents Limited
External wall blocks ... The Blokcrete Co. Ltd.
Roof glazing ... W. H. Heywood & Co. Ltd.

Passenger gangways ... Structural & Mechanical Development Engineers Limited

Sub-contractors to Structural & Mechanical Development Engineers, Limited

Electrical control gear ... Allen West & Co. Ltd.
Hydraulic machinery ... T. H. & J. Daniels Limited
Gangway lighting ... Thorn Electrical Industries Limited
Internal lighting—customs halls ... The English Electric Co. Ltd.
Approach bridge ... The Pre-Stressed Concrete Co. Ltd.
Foundation piling ... West's Piling & Construction Co. Ltd.



An aerial view of the Southampton Ocean Dock showing the "Queen Elizabeth" lying at her former berth and, centre, the new Ocean Terminal

RESEARCH ON DUST AND FUMES IN IRON-FOUNDRIES.—The Joint Iron Council, in association with the Council of Iron-foundry Associations, has decided to intensify work on problems of dust and fumes in ironfoundries, and to provide an

advisory service on how these may best be dealt with in foundry practice. The work is being carried out through the British Cast-Iron Research Association which is largely financed by the Joint Iron Council. A special committee of the Research Asso-

ciation known as the Foundry Atmospheres Committee is supervising the work. Collaboration is being maintained with the Joint Standing Committee on Conditions in Ironfoundries set up by the Factory Department of the Ministry of Labour.

Straddle Truck Timber Carrier

New machine for the speedy handling of loads up to five tons in weight

A STRADDLE truck timber carrier claimed to be the first machine of its type to be made in this country is now in course of manufacture by Pest Control (U.K.), Limited, Bourn, Cambridge. The carrier, known as the Timber Wolf, Model 1, is powered by a Fordson V.8 engine developing 84 b.h.p., and is designed to straddle a load of timber or similar material 42 in. wide, 48 in. high, and up to 29 ft. 0 in. in length, an approximate load of 5 tons. The machine is capable of a loaded speed of 20 m.p.h. and has a turning circle of 18 ft. 0 in. dia. to inside wheels.

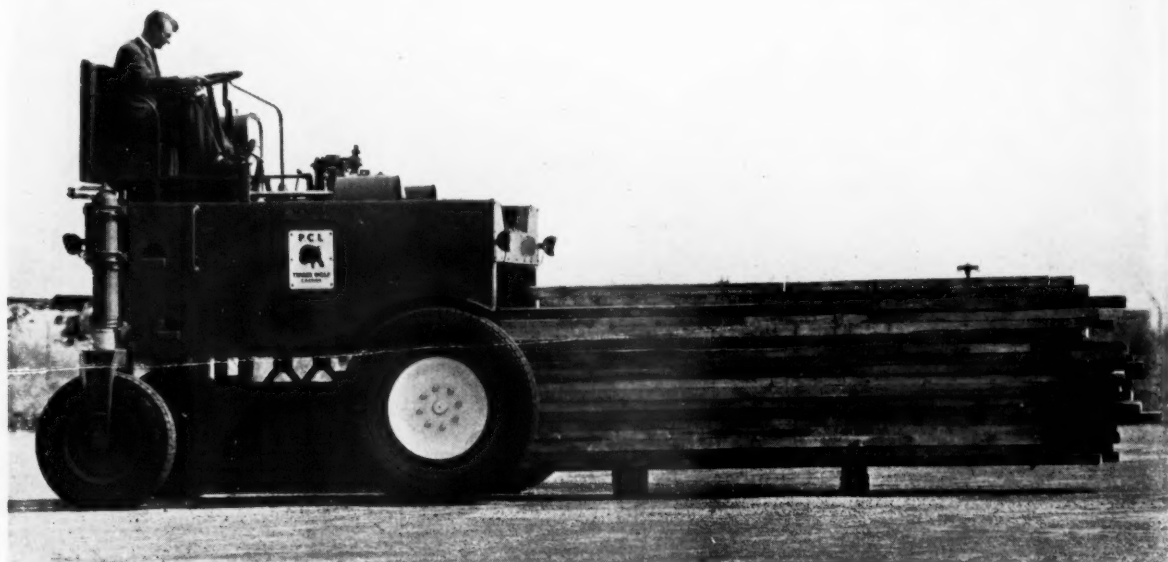
The main frame consists of fabricated channel section beams running along the side of the vehicle, with box section cross-members of steel plate, the whole being of rigid construction. The chain

cases are bolted to the front side-beams, and the rear wheel support tubes are clamped in fabricated cradles bolted to the rear of the side beams. The timber carrier hook consists of two check-plates, at the foot of which is a 6 in. \times 6 in. \times $\frac{5}{8}$ in. steel angle forming the lifting portion of the hook, lifting being effected by two 1 $\frac{1}{2}$ -in. pitch chains connected to guided steel tubes. The chains are raised or lowered by means of chain pinions running parallel to the side beams, connected by means of a cross-shaft and worm gears to the raising gear box, which is operated by friction drive off the engine.

This drive is operated in a forward and reverse direction, which causes it to raise or lower the hook, and at the same time a spring-loaded clamping brake is

disengaged and, on completion of the raising operation, the clamping brake re-asserts itself; thus the load can be held in any position. Automatic limit stops are fitted. A working load of 5 tons can be raised in approximately 5 sec.

The engine and gearbox are mounted at the rear of the machine and from the gearbox a drive is taken to the front axle which carries the 1 $\frac{1}{2}$ in. pitch chain pinions. The front wheels are supported by the chain cases, while the rear steering wheels, capable of turning through an angle of 45 deg., are supported by U-shaped brackets and hydraulically clamped. Axles are fitted with tapered roller bearings. Mechanically operated brakes are fitted to the front driving wheels and lubrication is effected by grease gun or oil feed.



Carrier about to straddle a load of timber unloaded from a lorry by fork-truck on to holsters

HALF-DECK PUBLIC SERVICE VEHICLES.—The use of a new type of single-deck bus or coach, officially termed a half-deck public service vehicle, in which the seats are arranged at two different levels but served by one gangway, was made possible from July 29, under special regulations made by the Minister of Transport. The overall length of such vehicles is limited to 30 ft. and the seating capacity to 50 passengers, excluding the driver and conductor, while the carriage of standing passengers is prohibited. Copies of these regulations can be obtained from H.M. Stationery Office. Their titles are: (a) The Motor Vehicles (Construction & Use) (Amendment) (No. 3) Regulations, 1950. (b) The Public Service Vehicles (Conditions of Fitness) (Amendment) (No. 2)

Regulations, 1950. (c) The Public Service Vehicles (Equipment and Use) (Amendment) Regulations, 1950. (d) The Standing Passengers (Amendment) Order, 1950.

RECORD NUMBER OF AMERICAN VISITORS.—Britain had a record number of American tourists during June, stated Sir Alexander Maxwell, Chairman of the British Travel & Holidays Association, on July 29. Arrivals from the United States totalled 19,110, which showed an increase of 26 per cent. over June of last year, and of these more than 33 per cent. came by air. A further 4,297 visitors from the U.S.A. passed through Great Britain in transit to other countries. Altogether 54,714 foreign visitors arrived in the United Kingdom during the month, which represents an in-

crease of almost 30 per cent. on the average pre-war figure, and over 11 per cent. more for the same period during 1949. There were approximately 17,000 arrivals from the Commonwealth and Empire making a grand total for the month of 71,714. Visitors from European countries also showed an increase.

RAILWAY BENEVOLENT INSTITUTION.—At a recent meeting the board of the Railway Benevolent Institution granted annuities to ten widows and 16 members involving an additional liability of £487 17s. a year. Fifty-six gratuities were also granted amounting to £558 10s. to meet cases of immediate necessity. Grants made from the casualty fund in June, 1950, amounted to £552 15s. 6d.

Repairs to an Eritrean Viaduct

Supporting arch to strengthen defective span

*By Major O. P. C. Collier,
General Manager, Eritrean Railways & Ropeways*



New supporting arch of viaduct near Massawa nearing completion with the timber centering still in position

A GULLY, some 25 miles from Massawa on the Eritrean Railways is spanned by a bridge of four arches of brick and masonry construction. The gully is normally dry and little water flows down it even in the rains. The arch at the Massawa end had been causing some anxiety for a

considerable period due to cracks in the brickwork; about a year ago the cracks began to spread and it became obvious that something would have to be done before the bridge became dangerous.

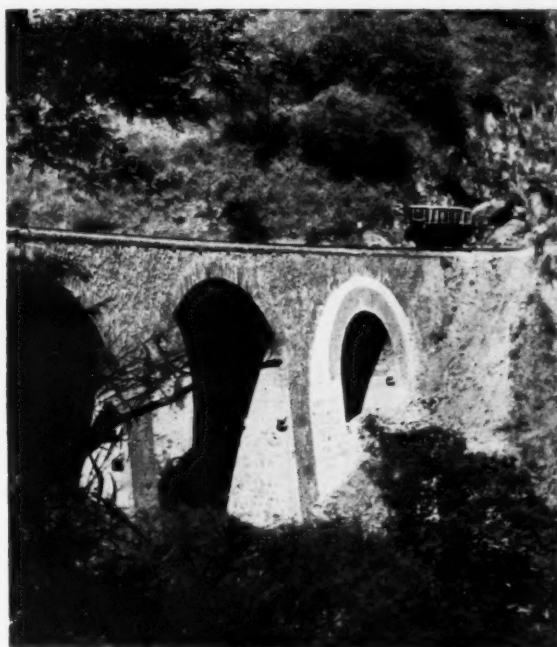
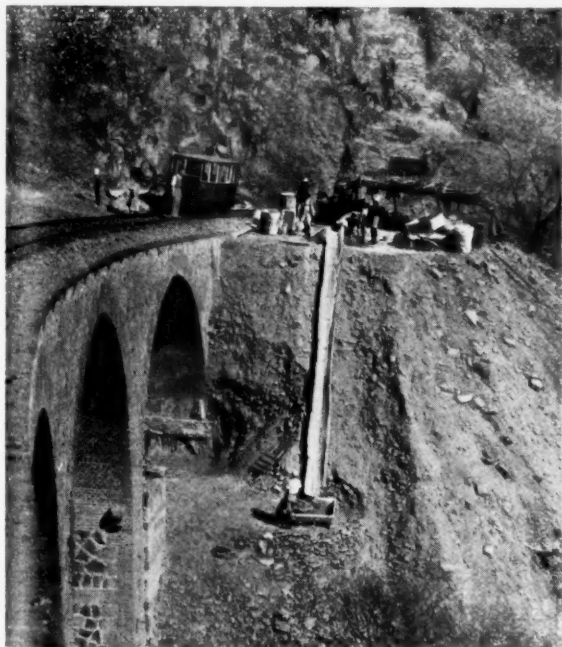
Various projects were discussed and finally it was decided to construct a supporting arch within the original one.

The description in *The Railway Gazette*, March 11, 1949, of the repairs to the East Norton Viaduct on the London Midland Region of the British Railways eventually convinced the engineering department of the practicability of this scheme.

On excavating for the piers of the inner arch it was found that those of the original abutment had been laid on sandstone, containing much mica. The sandstone was so soft that it could be crumbled up in the hand, and this was doubtless the cause of the trouble. Solid rock was found only a few feet below.

Bandit Activity

Because of bandit activity in the area it was not considered safe to keep an Italian mason permanently on the job, and the man in charge therefore visited the site daily on the normal diesel rail-car service which was stopped for a few minutes at the bridge. The work was supervised by the chief engineer as occasion offered by the diesel, steam train, or motor trolley. Much of the work had to be done by the Eritrean masons on their own and they carried out their task well. The final stages were supervised by the European mason, who was provided with an armed police guard, but no incidents occurred. With the exception of a 5 km.p.h. speed restriction on the bridge, normal traffic was not interfered with.



Views of the viaduct showing, left, repairs in progress, and right, the defective arch after completion of work

The Flåm Branch, Norwegian State Railways



View showing the spirals on the electrified Flåm branch near Myrdal with its maximum gradient of 1 in 18. The zig-zag road on the right was built to carry materials for the construction of the Bergen-Oslo main line



View from the Bergen-Oslo Railway east of Myrdal Station, showing the snow sheds on the branch to Flåm. The spirals at the head of the valley overcome a rise of more than 1,000 ft.

RAILWAY NEWS SECTION

PERSONAL

Mr. John S. Dowson, M.B.E., A.M.I.C.E., has been appointed General Manager of the Midland Railway of Western Australia, in succession to Mr. D. W. Brisbane, who has retired.

We regret to record the death on July 20, at the age of 85, of Sir Charles Stewart-Wilson, K.C.I.E., one time Deputy-Chairman of the Bengal-Nagpur Railway Company.

Major the Hon. Gwilym Lloyd George, P.C., a former Minister of Fuel & Power, has joined the board of directors of the Superheater Co. Ltd.

Mr. Stanley Smith has been appointed Chief Accountant to Thos. Cook & Son Ltd.

Major O. P. C. Collier, General Manager, Eritrea Railway & Ropeway, is at present in the United Kingdom on leave.

We regret to record the death on July 24 of Mr. J. R. Nolon, founder of Vi-Spring Products Limited, of which he was Chairman & Managing Director from 1901 to 1945.

Mr. George Jendrassik, M.I.Mech.E., has been appointed a Consulting Engineer to Power Jets (Research & Development) Limited. Mr. Jendrassik, who was born in Hungary, has lived in England since his arrival from South America in 1948. He began work on gas turbine engines in 1935. Before the recent war he worked for Ganz & Company in Budapest; he became General Manager and a Director of the company and was responsible for the technical work of many diesel engine developments, designing the Ganz-Jendrassik high-speed diesel engine for railcars. Mr. Jendrassik has been on the board of Metropolitan Railcars Limited since 1948.

SOUTHERN REGION APPOINTMENTS

The following appointments are announced by the Southern Region:—

Mr. W. Oldham, Head of Coaching (General) Division, Accountant's Department, to be Assistant (Audit), Accountant's Department, *vice* Mr. T. E. Newman, retired.

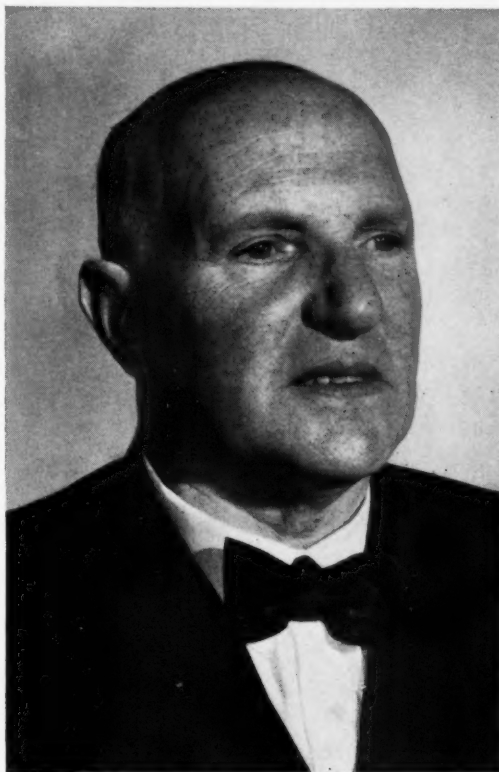
Mr. W. H. Scutt, Assistant Divisional Superintendent, London West Division, to be Acting Divisional Superintendent, London West Division, *vice* the late Mr. C. F. de Pury.

Mr. P. A. England, Chief Clerk, London West Division, to be Acting Assistant Divisional Superintendent, London West Division, *vice* Mr. W. H. Scutt.

Mr. A. E. Diggins, Chief Clerk, Labour & Establishment Department, to be Assistant (Wages Staff), Labour & Establishment Department.

Mr. F. L. Jagger, Railway Executive Headquarters, to be Assistant (Salaried Staff), Labour & Establishment Department.

Lt.-Colonel Steven J. L. Hardie, D.S.O., LL.D., who, as recorded in our July 21 issue, has been appointed a Member of the British Transport Commission, on a part-time basis, was born in Paisley in 1885, and was educated at Paisley Grammar School and Glasgow University. He served in the 1914-19 war with the 6th Argyll and Sutherland Highlanders and 51st (Highland) Division, and commanded the 51st (Highland) Bn. Machine Gun Corps in France,



Lt.-Colonel Steven J. L. Hardie

Appointed a part-time Member of the British Transport Commission

Belgium and Germany; he was awarded the D.S.O. and was three times mentioned in despatches. Colonel Hardie is Chairman of the British Oxygen Co. Ltd., and Director of its associated companies in Great Britain and in Africa, Australia, Burma, Canada, Ceylon, China, Egypt, India, Malaya, Pakistan, and Norway. During the past eighteen months he has made an extensive survey, chiefly from the point of view of industrial development, of the works of associated companies in various overseas countries. He was Deputy Chairman of the King Haakon Fund for Relief in Norway, and in 1947 was awarded the King Haakon VII Liberty Cross. Colonel Hardie was Chairman of the Jute Working Party, 1946-47, and is a Member of the Executive Committee of the Scottish Council (Development & Industry), and a member of the Special Committee of Inquiry into Scottish Revenue & Expenditure, appointed by the Secretary of State for Scotland. In 1944 Edinburgh University conferred on him the honorary degree LL.D.

Mr. F. J. Daudé, until recently Auditor-Delegate of the Transport Secretariat, Buenos Ayres Great Southern, Buenos Ayres Western, and Buenos Ayres Midland Railways, Argentina, who has recently been appointed Chief Accountant, General Roca Railway, was born in 1904. He became a Public Accountant in 1936, and was Inspecting Accountant & Official Representative of the Bank of the Argentine Nation until 1945, when he was appointed Sub-Manager of the Committee for Control and Final Disposal of Enemy Property. Two years later, Mr. Daudé was appointed Assistant Chief of the Administrative Department, Central Bank of the Argentine Republic, and shortly afterwards he became Auditor-Delegate of the Transport Secretariat in the Buenos Ayres Great Southern, Buenos Ayres Western, and Buenos Ayres Midland Railways.

Mr. Jaime Galimany, Chief of the Staff Section, General Mitre Railway, Argentina, who, as recorded in our June 23 issue, has been appointed Chief of the Staff Division, was born in 1902 and educated at the English High School, Venado Tuerto. He joined the Central Argentine Railway in 1916, but was transferred to the Traction Department in 1918, and became Private Clerk to the Traction Superintendent in 1933. Eight years later Mr. Galimany was appointed Assistant Chief Clerk, Traction Department, and in 1945 was transferred to the General Manager's Staff Office as Assistant to the Chief of Staff & Labour; he became Chief of the Staff Section in May, 1949. Mr. Galimany served on various committees on staff & labour questions, especially in connection with the collective agreements on wages and working conditions signed in 1946.

Mr. F. J. Castelli, Chief of the Station Audit Office, General Mitre Railway, Argentina, who has recently been appointed Chief of the Refreshment Division, entered the service of the Central Argentine Railway in 1907. After holding various positions, he was transferred to the Chief Accountant's Department in 1919, and became, successively, Assistant Auditor, Auditor, and Inspector of Auditors. Mr. Castelli was subsequently appointed Chief of the Station Audit Office.

We regret to record the death on July 29, at the age of 65, of Baron Hacking of Chorley, P.C., Bt., O.B.E., who was founder and Chairman of the Travel Association of Great Britain and Ireland, until it was merged in the British Travel & Holidays Association this year; represented the Chorley Division of Lancashire from 1918 until his elevation to the peerage in 1945; and was Chairman of the Conservative Party Organisation from 1936 to 1942. He was born in 1884 and educated at Giggleswick School and Manchester University. In 1916 he was commissioned in the East Lancashire Regi-

**Mr. F. J. Daudé**

Appointed Chief Accountant, General Roca Railway, Argentina

**Mr. Jaime Galimany**

Appointed Chief of Staff Division, General Mitre Railway, Argentina

**Mr. F. J. Castelli**

Appointed Chief of Refreshment Division, General Mitre Railway, Argentina

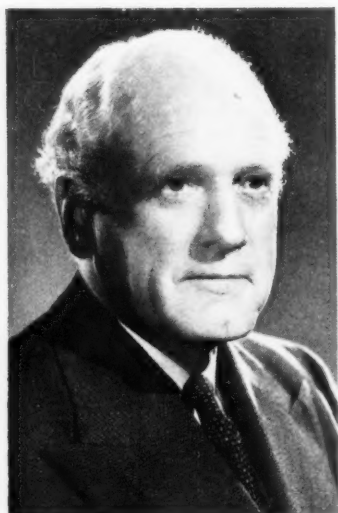
ment, and was mentioned in despatches and made an O.B.E. In 1918 Lord Hacking was elected Conservative M.P. for the Chorley Division of Lancashire and in 1920 became Parliamentary Private Secretary at the Ministry of Pensions, subsequently serving in a similar capacity at the Admiralty and War Office. He was appointed Parliamentary Under-Secretary of State for the Home Department and Representative of the Office of Works in the House of Commons in 1925, and in 1927 became Secretary of the Department of Overseas Trade with the ancillary offices of Parliamentary Secretary to the Board of Trade and Parliamentary Under-Secretary of State for Foreign Affairs. After a period while his party was in opposition Lord Hacking returned to his former position at the Home Office in 1933, and later moved to the War Office as Financial Secretary. In 1936 he was appointed Chairman of the Conservative Party Organisation, a position he continued to

hold until 1942. He had founded the Travel Association of Great Britain and Ireland in 1928, and after his retirement from the House of Commons it became his principal interest; the Travel Association was amalgamated with the British Tourist and Holidays Board last March. Lord Hacking was sworn of the Privy Council in 1929 and created a baronet in 1938; he was created a Baron in 1945.

Mr. C. S. Sayce, M.B.E., who has retired from the post of Assistant Stores Superintendent, East African Railways & Harbours, was first appointed to the Tanganyika Railways in 1926, as a Sub-Storekeeper. He was appointed Storekeeper in 1939, and in 1946 was promoted Chief Storekeeper, in which capacity he was responsible not only for the railway stores depots, but was also in charge of the Tanganyika Government stores organisation. On the amalgamation of the Kenya & Uganda and Tanganyika railway systems

in 1948, Mr. Sayce was appointed to the post of Assistant Stores Superintendent.

We regret to record the death on July 17, at the age of 77, of Mr. G. B. Hennessy, who retired in 1938 from the position of District Locomotive Superintendent, Ipswich, L.N.E.R. He was educated at Christ's Hospital, London, and began his engineering career as an apprentice to the Phoenix Engineering Company; he subsequently joined the G.N.R. in 1891. Mr. Hennessy was appointed as Overlooker at Hatfield locomotive depot in 1903. He became Assistant to the District Locomotive Superintendent, Colwick, in 1907 and the following year was given charge of Hornsey depot. In 1917 he returned to Kings Cross as Assistant to the District Locomotive Superintendent and was appointed District Locomotive Superintendent, Norwich, in 1927; Mr. Hennessy became District Locomotive Superintendent, Ipswich, in 1932.



(Photo) [Bassano]
The late Lord Hacking

Founder and until recently Chairman of the Travel Association

**Mr. C. S. Sayce**

Assistant Stores Superintendent, East African Railways & Harbours, who has retired

**The late Mr. G. B. Hennessy**

District Locomotive Superintendent, Ipswich, L.N.E.R., 1932-38

New Ocean Terminal at Southampton Docks

Official opening by the Prime Minister

The Prime Minister, Mr. C. R. Attlee, M.P., performed the opening ceremony in connection with the new Ocean Terminal at Southampton Docks on Monday last. The terminal, which is described elsewhere in this issue, was inspected by a large number of guests, many of whom travelled from London by special train.

Among those present were the Minister of Transport and Members of his Department, Chairmen and Members of the British Transport Commission and the various Transport Executives, and representatives of shipping lines and trading interests.

At a luncheon held on board R.M.S. *Queen Elizabeth*, the first vessel to use the new terminal, the Prime Minister was presented with a souvenir of the occasion by Sir Eustace Missenden, Chairman of the Railway Executive.

Lord Hurcomb, proposing the toast of His Majesty's Ministers, said that they were very grateful to the Prime Minister for coming at a time when he was beset by many preoccupations. They were also greatly indebted to the Minister of Transport and to others of H.M. Ministers who had encouraged and forwarded the realisation of this project.

While not disdaining the thought that the traffic which this new terminal was intended to foster would earn dollars, the Prime Minister, as head of H.M. Government, would share their pride in being able at last to offer overseas visitors facilities which were believed to be equal to, if they did not surpass, those of any other port in the world.

Much attention had been paid to the terminals of airports, and it was high time that this country provided at its principal approach, for those arriving by sea, fully comparable facilities. Such attractive facilities they had endeavoured to provide, and, as at modern airports, they were providing also ample accommodation for the friends of passengers and for those who wished to watch the tide of life flowing through the port.

They were glad to acknowledge the value of hints which the officers of the former Southern Railway were able to get from their studies of terminal technique in other countries, while the present scheme was still on the drawing board, and to acknowledge also the helpful advice of the Royal Fine Art Commission.

It was not possible to acknowledge the individual contributions of all the executive and technical officers and craftsmen and contractors whose thought and skill had gone into this great project and who had helped to plan and carry through the replacement of the old war-damaged transit sheds by this new terminal. Special credit belonged to Sir Eustace Missenden, once Docks & Marine Manager of the Southern Railway, who as its General Manager was able to bring the plans to completion and in 1946 to put them for approval before the board, whose last Chairman, Sir Eric Gore-Browne, was with them today. As Chairman of the Railway Executive, Sir Eustace Missenden was now to be congratulated on seeing the enterprise through.

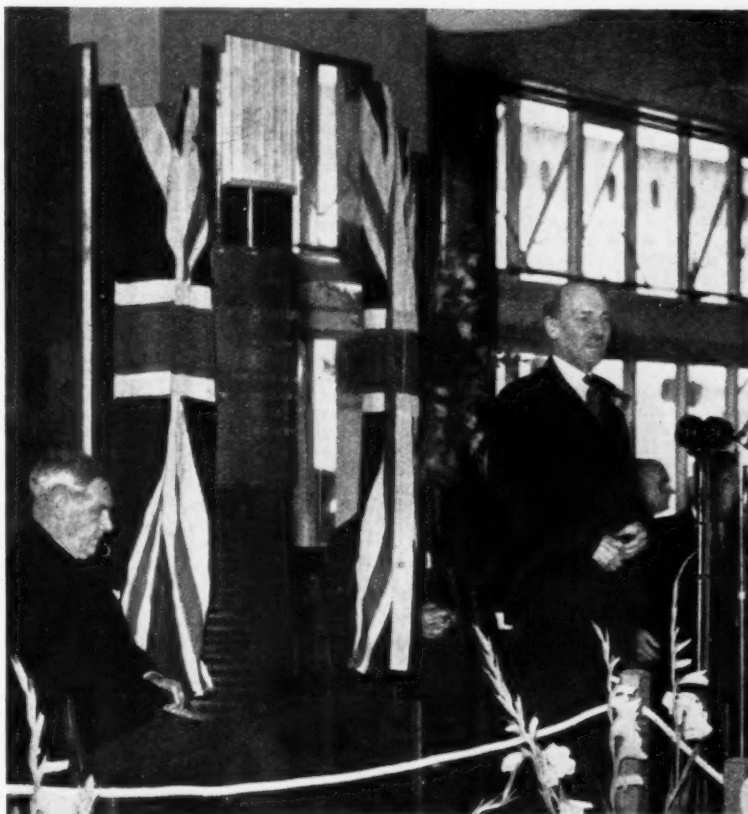
It followed from the statutory shape of their organisation that Southampton Docks should in future be administered by the Docks & Inland Waterways Executive. He could assure their shipping friends, users of the port, and the Mayor and Corporation that any administrative dislocation

would be avoided. All their officers would continue to do everything possible to maintain and increase efficiency, and to help develop trade. Chief among them was Mr. R. P. Biddle, a valued colleague during the war on the shipping side of war transport where he was charged with high responsibilities, and who is highly regarded in Southampton.

If, for a moment, they thought back, what pleasure it would have given to Sir Herbert Walker, who first realised and seized the opportunity for great develop-

by the Southern Railway Company, it had been duly brought to birth under a new régime, and it stood as a conspicuous monument to the enterprise and skill of the British Transport executives and engineers.

The Prime Minister, in responding to the toast, said that it was the first occasion on which he had had the pleasure of meeting Lord Hurcomb since he had received his well-deserved honour. It had been a recognition of the great services which he had performed in many fields of endeavour, especially in transport, both in peace and in war. He also paid tribute to Sir Eustace Missenden, who as General Manager of the Southern Railway, had foreseen the need for the terminal.



The Prime Minister, Mr. C. R. Attlee, at the new Ocean Terminal at Southampton Docks on July 31, with Lord Hurcomb, Chairman of the British Transport Commission, seated on his right

ment in Southampton, to see today the creation under his successors of this splendid new facility. Nor, speaking on the *Queen Elizabeth*, could he fail to think of Sir Percy Bates, a close friend of his. Few men had shown so trenchant a judgment and so much courage and foresight in critical decisions.

In this ocean terminal, the British Transport Commission inherited a commitment, and they had to consider seriously whether it could be pressed forward within the limits of the restricted capital investment imposed on them by national necessities, and in the face of heavily enhanced estimates of cost since it was first projected. But in spite of difficulties and other claims, this fine installation which the Prime Minister has done them the honour to open, took high priority. Conceived

Competition for works requiring capital investment was very keen and Government departments had to put up a strong fight for their projects. Having seen the new Ocean Terminal, the Prime Minister was sure that the Government had been right in allowing it to take its place in the capital investment programme.

The Minister of Transport, Mr. Alfred Barnes, who proposed the toast, "Our Luncheon Hosts" paid tribute to the Cunard Steamship Company, as representing one of the foremost shipping lines.

Mr. F. A. Bates, Chairman of the Cunard Steamship Co. Ltd., responding to the toast, said that he spoke as a member of a team, for the team spirit pervaded the Cunard Line. His company had just celebrated its 110th anniversary and was still looking to the future.

Integration of Freight Services by Road and Rail

A statement of policy issued by the British Transport Commission for the guidance of its staff, and traders

During the past twelve months, much consideration has been given by the Commission to the steps to be taken, in accordance with Section 3 of the Transport Act, to integrate the services provided by the Railway and Road Haulage Executives for the transport of goods and merchandise. Consultations have taken place with the principal Trade Unions representative of the staff of the Executives through the British Transport Joint Consultative Council, and a preliminary statement of policy was supplied to these Unions in November, 1949, and discussed at subsequent meetings of the Council.

The Commission has now considered it desirable to place the problem in a wider setting, and a statement of policy has been prepared for issue to the staff of the whole of the Commission's undertaking, and to users of the Commission's services, and to serve as a directive from the Commission to the Railway and Road Haulage Executives as to the steps to be taken for the integration of their respective freight services. The terms of this statement were fully discussed at a meeting of the British Transport Joint Consultative Council held on July 17, 1950.

Questions relating to the conditions of service of the staff who may be affected by the proposals contained in this statement will be dealt with by negotiation between the two Executives and the Trade Unions under the agreed negotiating machinery.

Consultation will now take place between the Docks & Inland Waterways Executive, the Railway Executive, and the Road Haulage Executive on the question of defining the objectives and methods of integrating services by inland waterway with those by rail and by road.

The Commission has also informed the Central Transport Consultative Committee of the proposals contained in the statement, and assured that Committee that it has no intention of operating integration schemes in such a way as to override the duty resting on the Commission under Section 3 (2) of the Transport Act to allow freedom of choice to any person desiring transport for his goods where regular services of different kinds are available between the same points.

Rail and road services should be regarded and developed much more as complementary to each other, and much less as rival forms of transport.

Rail transport is specially suitable and efficient for:—

- i. traffic which can be carried from point to point in train loads;
- ii. traffic passing from or to private sidings;
- iii. the trunk haul, free from staging, of most kinds of long distance traffic. This traffic may require increased use of containers and extended feeder or distributor service by road;
- iv. low grade traffic over any distance, whether travelling in train loads or not, where the rail service is adequate and costs less to provide than the road service;
- v. traffic requiring bulk movement and storage before or after transit;
- vi. large blocks of traffic requiring immediate absorption in the transport system, such as bulk imports ex ship, or industrial output from steelworks; and
- vii. large blocks of traffic involving unbalanced movement.

Road transport is specially suitable and efficient for:—

- i. local transport work;
- ii. more extended services up to the distance at which the economy in tractive effort by using rail for

- the trunk portion of the conveyance is greater than the economy resulting from:—
- (a) avoidance of the extra handling on and off rail;
 - (b) the saving to the trader of the cost and weight of packing material, etc., or of returned empties;
 - (c) the reduction in the risk of pilferage, damage or loss, made possible by freedom from transshipping;
 - (d) saving in time;
- iii. traffic where the dimensions of the goods make railway transport either awkward or costly, due to railway loading gauge, or where rail transport would involve dismantling the consignment and carrying it in sections; and
- iv. household removals and similar traffic where special packing and unpacking is essential, or where a skilled person must personally deliver and erect or fit the goods.

Collection and Delivery Services

The Road Haulage Executive will eventually provide all road services for freight within the control of the Commission, but for the time being the Railway Executive will provide and control its collection and delivery services, and will continue to unify and co-ordinate them.

The Railway Executive has begun to reduce its cartage establishment to minimum strength for general requirements, progressively relying on suitable Road Haulage Executive resources for marginal and seasonal requirements.

Road Haulage Executive cartage services will gradually be combined with, or substituted for, Railway Executive cartage services. Radial distribution services for individual firms will be provided by the Road Haulage Executive. Joint zonal collection and delivery schemes will be developed, the aim being to turn all zonal schemes into joint schemes within the next two or three years.

R.H.E. vehicles and drivers will be employed for new trunk services operated as part of zonal collection and delivery services, and this arrangement will be extended to other such services already existing. Throughout road services will, in general, be operated only by the R.H.E.

Responsibility for providing the vehicles and staff for railway collection and delivery services will be progressively transferred to the Road Haulage Executive in stages agreed between the Executives, but at the depots the local control of the terminal and the cartage arrangements will not be divided. It is unlikely that responsibility for collection and delivery services now operated by the Railway Executive from its principal depots in London and the largest cities will be transferred from that Executive during the next three or four years.

Traffic in General

Wherever, and as soon as, opportunity offers, action on the following lines will be taken:—

The Road Haulage Executive will use the Railway Executive's rail service for direct trunk haulage of long-distance 'smalls' and wagon load traffic where the Railway Executive can make available suitable terminal accommodation, containers, and train services.

The Railway Executive will use the Road Haulage Executive's road services for trunk haulage of cross-country traffic and wherever use of road services will reduce staging and transit time, and facilitate rail movements in direct train loads between main centres.

The transference of trunk hauls to rail will take place concurrently with the in-

creasing use of road vehicles for cross-country traffic, and for substantially extended feeder and distributor services as well as the gradual assumption by the Road Haulage Executive of the responsibility for providing collection and delivery services. Balanced changes will be made as far as practicable.

Where branch lines are partly or wholly closed to freight traffic, the Road Haulage Executive will provide a substitute service where this can be justified. Joint arrangements will be made for perishable fruit and vegetable traffic. Even long-distance traffic of this nature must move through-out by road where rail services cannot give next morning delivery at the markets. Extended road feeder and distributor services will be provided to assist in making up through train loads.

These changes will take time to plan and execute, and experience may lead to modifications as the results emerge.

The development of joint zonal collection and delivery services will provide opportunities for joint use of existing terminals and promotion of new joint terminals on modern lines under single control.

A common supply service will be developed and the Road Haulage Executive will operate it.

Road Vehicle Engineering Services

The aim will be to build up a full-scale engineering service operated by the Road Haulage Executive.

(i) *Overhauls in Works.* The Road Haulage Executive will develop existing works or plan new works in consultation with the Railway Executive. The Road Haulage Executive from now on will undertake overhauls for the Railway Executive wherever the Road Haulage Executive has, or develops, facilities, and where such a course is convenient and economical.

The transfer of particular Railway Executive road motor repair plant to the Road Haulage Executive will be considered on merits. Forward plans will include works for reconditioning major units, such as engines, gear boxes and back axles, under line production methods.

(ii) *Maintenance in Workshops and Running Repairs.* The Road Haulage Executive will not, at present, undertake generally the day-to-day maintenance of Railway Executive vehicles, although this may be arranged by mutual consent. Railway Executive facilities will be temporarily used for Road Haulage Executive vehicles when convenient.

As Railway Executive vehicles pass into Road Haulage Executive control, the responsibility for maintenance will also pass to the Road Haulage Executive.

The Commission regards a common commercial service as one of the objectives in the ultimate integration of services. The approach to this will be by carefully-planned experiments each confined to a restricted area.

Staff

It cannot be too strongly emphasised that integration is vital to the efficiency of public transport. Efficiency is, in the long run, the surest safeguard of employment.

The application and development of the described policy will involve many adjustments in existing arrangements, but they

will be made so as to avoid dislocation or loss of efficiency, and to minimise hardship to the staff affected.

Each member of the staff will ask how this affects him. It is impossible to say in advance how any one scheme will affect individuals until the last details of that scheme have been worked out and applied, but it is possible to say in broad terms how the Executives intend to safeguard employment so far as it lies within their power to do so.

Having regard to the fact that there will not be a common pattern in each scheme dealing with integration, and that the staff concerned will not be similar, while the same general principles may apply, the arrangements regarding staff will be kept as elastic as possible to allow of each scheme being treated on its merits as and when it is carried out.

Regard to Staff Interests

In the detailed implementation of the Commission's policy, each move forward will be taken with careful regard to the interests of the staff affected. Where members of the staff lose their existing work, every effort will be made to provide them with continued employment at a convenient place and on reasonable terms, but it is realised that problems will inevitably arise. They must be regarded as unavoidable, but dealt with sympathetically and with understanding.

Continued employment by one or other of the Executives will be desired by most of the men affected by these schemes. The arrangements between the Executives and their staffs include redundancy provisions

which will be fairly applied. Both Executives lose some 10 per cent. of their staff through normal wastage every year. The effect of integration on employment will therefore be eased as far as possible so as to take advantage of this wastage. Recruitment will be regulated so that one Executive is not taking on new staff when the other is reducing its staff in the same area. Where, in spite of these checks, staff have to be dispensed with, the general principle will be—last in, first out—with reasonable notice, the definition of which is under consideration.

Next in importance to continued employment come rates of pay and conditions of service. Stepping down in grade will not always be avoidable, but every effort will be made to put staff for whom there is work in posts of equal value to those they are losing. The question of the rates of pay of such staff will be dealt with between the Executives and the Unions.

Conditions of service will partly depend upon the form of continued employment chosen by displaced staff. The Executives are working out arrangements with the Trade Unions whereby transferred staff will be able to exercise an option to stay with, or return to, one Executive or the other. Problems of seniority, promotion, privileges, etc., will be dealt with. The Executives have no wish to see any man lose the benefits he has earned through years of faithful service to the undertakings which have employed him, but flat uniformity of pay and conditions for comparable grades in the separate Executives is impracticable, and may even be undesirable. It follows that there must be

give and take when transfers take place.

The housing difficulty is fully appreciated, and every effort will be made to avoid hardship.

Training

Training is in the forefront of the Executives' plans. Within the organisations of the separate Executives, training schemes of all kinds will be developed, and they will, among other things, facilitate the absorption of displaced staff. In particular, the training courses for the commercial staffs of the Executives will have as much common ground as possible, so that they can contribute to the development of the common commercial service, which is one of the Commission's objectives.

The exchange of selected officers and staff between the Executives, on loan, is also being arranged with the same object in view. It is essential to widen experience and to develop a "transport" outlook in place of views and loyalties based exclusively on road or rail experience.

Employment in transport must depend on traffic. The volume of traffic depends on cost and efficiency. The level of cost and efficiency depends on good management, good work, and proper equipment. Good work depends on a well-trained, keen, and contented staff. Integration, carefully planned and wisely applied, will improve and refashion public transport in this country, and there can be no doubt about the ultimate advantage to those who will man this progressive service. The problem is how best to tide over the transitional period.

Main-Line Diesel Freight Haulage in Canada



Main-line diesel-electric locomotive built by the Montreal Locomotive Works hauling a heavy freight train on the Canadian National Railways on the outskirts of Toronto

London Area Passenger Charges Scheme

Revised proposals submitted by the British Transport Commission for early morning travel: Close of inquiry

On July 26 the Transport Tribunal again met to consider the draft London Area (Interim) Passenger Charges Scheme which the British Transport Commission is seeking authority to introduce on October 1. On this occasion the Tribunal considered the amendments it had asked the B.T.C. to make in reducing by £1,000,000 the proposed increased cost of early morning travel in the London area.

These amended proposals submitted by the B.T.C. reduce the estimated revenue from the scheme by £923,000 from £3,692,000 to £2,769,000. When the inquiry reopened on July 26, the President, Sir W. Bruce Thomas, K.C., remarked that the Tribunal had looked very closely into the proposals, and it would seem that this figure of £923,000 was as close as the B.T.C. could be expected to get.

Early Morning Scales

In its memorandum the Commission states that, having regard to all the requirements to be maintained in such a scheme, the amended early morning scales cannot be based on any consistent rate per mile and to that extent must be considered arbitrary. In compiling the scales, however, regard has been had to the suggestions put forward by various objectors to the scheme.

At the same time, it is considered as a matter of prime importance that close comparability should be preserved between the early morning charges for travel by rail and by road for distances up to 10 miles.

For distances from 2 to 10 miles, there-

fore, which is the limit of the early morning scale for roads, there is a flat 2d. early morning single fare for these services. This fare, when added to the proposed ordinary single fare, produces the early morning return scale for railways for those distances except that, when the resultant fare involves a halfpenny denomination (8½d. at 5 miles and 1s. 1½d. at 9 miles), those halfpennies have been dropped in the rail fares in order to facilitate the mechanical issue of tickets.

From 11 to 15 miles, the early morning return fares for railways represent an increase of 4d. on the existing London Transport workmen's return fares for railways, which are on the lower of the two existing scales respectively applied by the London Transport Executive and the Railway Executive for those distances.

From 16 to 50 miles, the amended early morning return scale represents basically an increase of 25 per cent. on the lower of the two scales, the London Transport scale being the lower from 16 to 22 miles and the Railway Executive scale being the lower over 23 miles. Fractions of a penny have been rounded up as far as possible to the next whole penny.

For distances of 20 miles and over, the amended scale is either lower than, or equal to, that put forward on behalf of the Southend Corporation.

The Transport Tribunal has stated that those workers who now enjoy the facility of shift workers tickets should continue to be entitled to shift workers tickets at the same fares as the early morning fares and

otherwise on the same conditions and under the same regulations as obtain at present. In the case of the railways, whether of the Railway Executive or the London Transport Executive, no practical difficulty arises.

Shift Workers

The mechanism by which cheap fare facilities for shift workers are granted today on the road services, confined to trams and trolleybuses, is by the issue of a cheap return ticket on production of a form of identity card.

Under the proposed scheme return tickets will be abolished and the Commission sees no practical alternative to the introduction of the system of cheap early morning single fares on road services when cheap early morning travel is extended over the whole of the road system.

If it is intended that facilities for shift workers should be granted over the whole of the road services on the basis of the early morning scales, not only would this extend the facility to many who have not previously enjoyed it, but the B.T.C. is unable to devise any method of operating the facility in such a way that there could be effective control of abuse and that the conductors would not be subjected to an additional burden which would make their task unworkable.

To diminish the risk of widespread abuse it would be necessary to issue to the shift workman his identity card and also some further form of ticket which could be cancelled to indicate that his entitlement to a

LONDON AREA (INTERIM) PASSENGER CHARGES SCHEME

Estimated annual increases or decreases in revenue from proposed alterations in charges as amended

Category of charges	R.E. railways (excluding L.T. & S. line except in Item 4)		L.T.E. railways		Central and country buses		Trams and trolleybuses		Coaches		Total	
	Existing value 1949	Increase (+) or decrease (-)	Existing value 1949	Increase (+) or decrease (-)	Existing value 1949	Increase (+) or decrease (-)	Existing value 1949	Increase (+) or decrease (-)	Existing value 1949	Increase (+) or decrease (-)	Existing value 1949	Increase (+) or decrease (-)
	£	£	£	£	£	£	£	£	£	£	£	£
1. Ordinary, monthly return, cheap day return and day return fare (R.E.) ordinary and monthly return fares (L.T.) rail and ordinary and cheap day fares (L.T.E. road services) — excluding early morning travel covered by Item 3 ...	7,432,664	— 526,000	9,789,331	+ 1,263,366	24,633,753	+ 1,183,176	9,498,701	+ 534,566	1,891,325	— 192,830	53,245,774	+ 2,262,278
2. Season ticket rates (including weekly tickets) ...	5,939,017	— 475,000	2,394,629	+ 385,720	40,127	+ 4,428	—	—	87,269	— 12,996	8,461,042	— 97,848
3. Workmen's fares and fares for early morning travel including backward journeys of passengers travelling forward before 8 a.m. (excluding coaches) ...	2,829,023	(— 220,000)	1,522,607	(+ 763,424)	4,359,085	(— 577,660)	1,351,549	(+ 840,403)	—	—	10,062,264	+ 438,173
4. All categories of traffic—L.T. & S. line only ...	3,034,427	(— 281,000)	—	—	—	—	—	—	—	—	3,034,427	+ 165,900
5. Miscellaneous charges not included in Items 1 to 4 ...	416,411	—	287,673	—	276,650	—	66,113	—	197	—	1,047,044	—
6. Clearance between R.E. & L.T.E.— London area ...	—	— 527,244	—	—	—	—	—	—	—	—	—	—
Non-area ...	—	—	—	—	—	—	—	—	—	—	—	—
Total ...	19,124,298	— 935,600	14,424,240	+ 2,192,524	29,309,615	+ 467,398	10,916,363	+ 1,250,007	1,978,791	— 205,826	75,753,307	+ 2,768,503

cheap journey for a particular day is over. A problem would immediately arise over the distribution of these further tickets.

If alternatively, it is intended that the shift workers' facilities should be confined to the services where they are now in operation, by the retention of return tickets on those services, it would be necessary to maintain those services in their present form, even when the trams are replaced by buses, and to give the replacement buses some special designation. This would effectively prevent the integration of road services which is proposed on replacement of trams by buses and which is expected to secure economies in operation of the order of £200,000 a year. There would be some public dissatisfaction when the trams are replaced by buses.

In view of these difficulties the B.T.C. puts forward the proposal that the retention of shift workers' facilities under the new scheme should be confined to railways of the Railway Executive and the London Transport Executive. The average fare paid by shift workers on the trams and trolleybuses is 4.27d. compared with 7.75d. on London Transport railways and 14.63d. on the Railway Executive.

Furthermore, evidence of hardship was directed in the main towards the longer distances by railways. The burden of increase involved owing to the withdrawal of the facility from the road services is very much less than from the withdrawal on the rail services owing to the much longer distances travelled by rail. The effect on revenue of the withdrawal on road services amounts only to £16,000 as compared with £63,000 for withdrawal on rail services.

The estimated financial results of the amended proposals are shown in the accompanying table. The amendments relate to early morning traffic only, and take place in Line 3, Columns 3, 5, 7, 9, and 13; in Line 4, Column 3; and in the Totals. Other figures remain the same. (Figures in parentheses in the table represent the original estimates.)

As in the case of the original estimates for revenue for early morning traffic, no specific allowance has been made for losses of traffic due to the increases compared with the existing workmen's fares, or, for gains in traffic due to reductions in certain charges for early morning travel or to the transfer of existing traffic from ordinary fares, day return fares, or season ticket rates to early morning fares.

Under the new proposals, the attraction of the 2d. early morning single fare for 10 miles on road services is substantial and the B.T.C. points out that there is likely to be a greater diversion of traffic on the buses to the period before 8 a.m. than under the original proposals. Thus the decision of the Tribunal will entail an earlier building up of the mileage run by buses to its daily maximum, which must involve the London Transport Executive in further expense.

Mr. R. Moelwyn Hughes, K.C., for the L.C.C., the Croydon Borough Council, and the Union of Post Office Workers, welcomed the decision regarding workers' and shift workers' tickets, but suggested a method whereby they could get much nearer to the figure of £1,000,000, by "a slight amendment" to the scheme. He suggested that increases on fares for journeys over 15 miles should be restricted to a maximum of 4d. a day or 25 per cent., whichever was lower.

Mr. A. Capewell, K.C., for the Middlesex County Council, supporting this suggestion, said that, despite the modified proposals, the full increase in fares was 36 per cent., which was still too high.

Mr. D. J. Turner-Samuels, for the London Trades Councils, suggested that the 2-, 3-, and 4-mile early morning fares, as far as the London Transport Executive was concerned, should be 4d., 5d., and 6d. Under the new scheme, a workman making a 13-mile journey would pay 4d. more than he was paying now, whereas a workman travelling the same distance but in "two legs" of 10 miles and 3 miles, would pay an extra 5d.

Before Mr. A. B. Valentine, Member, London Transport Executive, returned to the witness chair to deal with proposals put forward on behalf of a number of objectors, the President said that the Tribunal had enough before it now to enable them to consider the question of the extension of shift workers' facilities on road services and to come to a conclusion.

Mr. Valentine said that the plan put forward by Mr. Hughes would increase the saving on increases by about £41,000 which would bring the figure up to £964,000. Asked how much further loss of revenue would be involved in the event of shift workers' facilities being retained and extended to all road services, he replied that the figure would be roughly £47,000 over and above the £16,000 already mentioned.

Closing the inquiry, which has lasted 26 days, the President said that the Tribunal had heard enough to reach a final conclusion.

Staff & Labour Matters

Railway Wage Claims

The Railway Executive is today (Friday) discussing with A.S.L.E.F. representatives the union claim for all men in the line of promotion to driver and motorman for an increase of not less than 15 per cent. on present basic rates; and also, with representatives of the union, the R.C.A. claim for a 7½ per cent. pay increase for all salaried staff.

The N.U.R. claim for lower-paid workers which has been referred to the Railway Staff National Tribunal, will be considered by the Tribunal on August 9.

Engineers' Pay Dispute

The claim for a £1 a week increase for engineers was discussed on July 28 by officers of the Minister of Labour and by representatives of the C.S.E.U. and of the Engineering & Allied Employers' Federation. It was decided to set up a committee to see if a basis can be found for resumption of direct negotiations. If no solution is found, the Minister will have to decide whether to refer the dispute to arbitration or set up a public inquiry.

WEATHER FORECAST BOARDS AT STATIONS—Each weekend until the end of the Summer train service on September 24, at Darlington, Middlesbrough, and Stockton stations, the North Eastern Region will display forecasts of the weather for the coast area from Seaton Carew to Saltburn. Each Friday at noon the Meteorological Office will give to British Railways by telephone its basic forecast for the weekend. This will be amended as necessary by telephone. Special boards are being provided for use in conspicuous places in the stations, and the forecasts will also be displayed in the enquiry office. Such boards are already in use at Newcastle, York, Leeds, and Hull.

Questions in Parliament

Channel Tunnel

Mr. E. Thurtle (Shoreditch and Finsbury—Lab.) on July 24 asked the Minister of Transport what recent report he had received from his representative on the committee dealing with the co-ordination of the highways systems of Europe; and whether his department would propose the creation of a Channel Tunnel as a means of improving the links between the British and European highway systems.

Mr. Alfred Barnes, in a written answer, stated: I assume that Mr. Thurtle is referring to the Working Party on Highways of the Inland Transport Committee of the Economic Commission for Europe. As this working party completed its work in July, 1949, there has been no reason for me to receive any recent report. My department would not, in any case, propose the creation of a Channel Tunnel.

Railway Safety Measures

Sir Wavell Wakefield (St. Marylebone—C.) on July 24 asked the Minister of Transport when train crews and control points on the railway system were going to be equipped with short-wave wireless sets for intercommunication for the greater safety of the public, the speeding up of operation, and the replacement of the present obsolete means of drawing attention to the fact that an accident had taken place.

Mr. Alfred Barnes (Minister of Transport), in a written answer, stated: The use of short-wave wireless for operational purposes is a matter for the British Transport Commission. I am advised that its extensive provision in trains and signal boxes would be extremely costly, of little, if any, value as a safety measure, and would not be justified for reporting accidents.

Passenger Charges Scheme

Mr. J. A. Boyd-Carpenter (Kingston-on-Thames—C.) on July 24 asked the Minister of Transport if he would make a statement on the action he proposed to take on the new charges scheme for the London area confirmed and published by the Transport Tribunal.

Mr. Alfred Barnes stated in a written answer: The Transport Tribunal has given only a preliminary decision on the draft London Area (Interim) Passenger Charges Scheme. The Transport Act provides that, if it confirms the scheme, with or without alterations, it shall be published in such manner, and shall come into force on such date or dates, as may be specified by them. I have no power to take any action in regard to a confirmed scheme except that I may subsequently require the Tribunal to review the operation of the scheme.

Travel Warrants for Service Personnel

Mr. A. H. Marlowe (Hove—C.) on July 26 asked the Minister of Defence whether he was aware of the hardship caused to Servicemen and women by the increased cost of travel when going on short leave, and whether he would authorise an increase in the number of free rail travel warrants.

Mr. E. Shinwell (Minister of Defence): Regular members of the Forces stationed in the United Kingdom receive a free warrant for each period of long leave up to a maximum of three a year; National Servicemen, in general, get three in 18 months. In addition, all members of the Services in this country, and their families, can travel on the railways at concession rates. These arrangements are reasonably generous, and we could not undertake to extend them.

Notes and News

Draughtsmen Required.—Draughtsmen are required for the London Office of the Crown Agents for the Colonies. See Official Notices on page 139.

Works Manager for Overseas.—An important overseas works engaged in locomotive building and allied products requires a works manager between 36 and 46 years of age. See Official Notices on page 139.

U.S. Loan for Ecuador.—An agency message states that the Government of Ecuador has signed a contract with the United States Export-Import Bank for a loan of \$1,500,000, to be used for the purchase of locomotives and rolling stock for the national railways.

Brush Electrical Engineering Co. Ltd.—The issue of new ordinary shares by the Brush Electrical Engineering Co. Ltd. to its existing shareholders, for which the closing date was July 28, has been over-subscribed; applications for excess shares to the value of £1,000 and over have therefore been scaled down.

Damages Against Railway Executive.—A former passenger was recently at Manchester Assizes awarded £5,500 damages against the Railway Executive. It was stated for the plaintiff that he had been injured in the collision near Stockport on November 30, 1948, and would be a cripple for life; the Railway Executive admitted liability. A digest of the Ministry of Transport report on the accident was given in *The Railway Gazette*, August 5, 1949, issue.

Meeting of B. & S. Massey Limited.—In his address at the annual general meeting of B. & S. Massey Limited in Manchester, on July 26, the Chairman, Mr. Alfred Ewing, said that the trading profit for the year, after charging depreciation and profits tax, and so on, amounted to £152,974. The net available profit was £85,838, and to this was added £41,801 brought forward from last year, totalling £127,639. A dividend and bonus similar to last year, i.e., an interim dividend of 7½ per cent. on the ordinary shares paid on January 26, 1950, and a final dividend of 10 per cent., with a bonus of 5 per cent., both subject to tax. The company

continues to receive orders at a very satisfactory rate and its order book ensured plenty of work for the current year and for some months beyond.

Williams & Williams Limited.—The consolidated net profits of Williams & Williams Limited for the year ended April 30 last amounted to £104,317 as compared with £110,033 for the previous year. The ordinary dividend recommended is 15 per cent. as in 1949.

Allen (Edgar) & Co. Ltd.—The board of Allen (Edgar) & Co. Ltd. propose an ordinary dividend for the period April 3, 1949, to April 1 last of 12½ per cent. per annum on the capital raised by a 50 per cent. share bonus. This absorbs £29,628 net and compares with last year's payment of 12½ per cent., plus a bonus of 5 per cent., which together absorbed £27,652 net. Profits amounted to £437,083 (against £429,042), less tax of £234,000 (£228,000). The annual general meeting will be held on August 23.

Repair of Wagons on European Railways.—The United Nations Economic Commission for Europe reports that in twelve European countries, including Western Germany, the total number of unserviceable wagons recently was 14 per cent. of the total stock (compared with 9 per cent. for British Railways). The percentage of wagons under repair ranges from 24 per cent. in Italy and nearly 20 per cent. in Western Germany, through 15 per cent. in Austria, and 14 per cent. in France to about 3 per cent. in Switzerland and Denmark. For the newly-formed Luxembourg National Railways the total, nearly 35 per cent., of unserviceable wagons, includes many which will be scrapped in the near future.

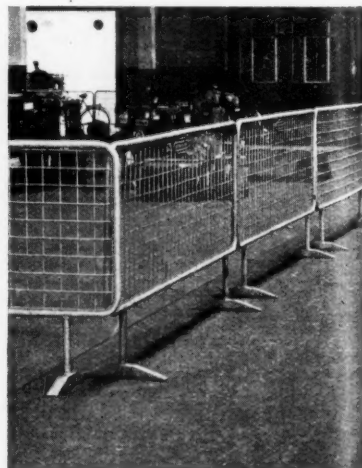
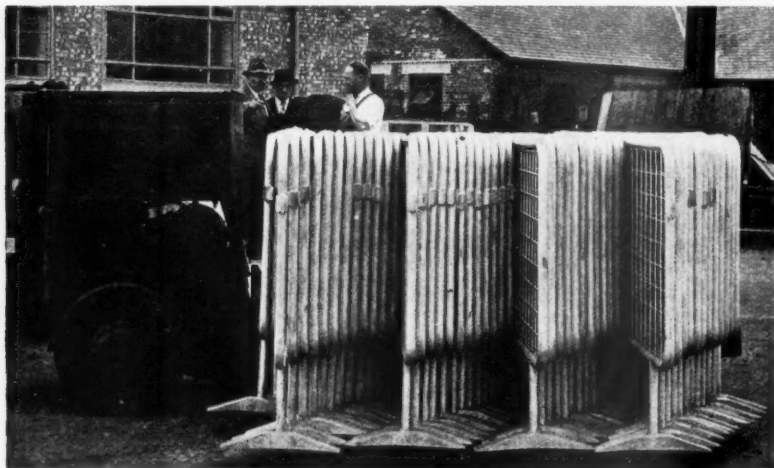
Tubular Steel Hurdle at Southampton Docks.—A new type of hurdle, which has been designed and constructed by the Docks Engineer's staff of British Railways at Southampton Docks, which is illustrated below, has been introduced at Southampton Docks for partitioning the passenger sheds for Customs and other purposes at liner arrivals and sailings. The frame and legs are of tubular steel, with a wire mesh panel, and the feet are of solid steel, giving a good degree of stability. The clearance underneath the frame enables

hurdles to be picked up and conveyed by electric truck; 50 hurdles (equivalent to a 400-ft. run) can be stacked on one tray for transport. The hurdles are 8 ft. long and weigh 75 lb.; they are zinc sprayed with a British Railways enamelled totem on either side of the panel.

Public Transport Association Luncheon.—The annual luncheon of the Public Transport Association will be held at the Connaught Rooms, Great Queen Street, London, W.C.2, on September 28. Mr. H. Spurrier, Vice-President of the Society of Motor Manufacturers & Traders, will be the principal guest.

British Railways Staff Meetings in Scotland.—Meetings were held at Mallaig and Fort William, on July 20, to afford an opportunity for representatives of the staffs of all departments of British Railways in these localities to meet Mr. W. P. Allen, Member of the Railway Executive, and officers of the Scottish Region. Mr. T. F. Cameron, Chief Regional Officer, presided. Mr. Allen spoke on various aspects of the railway undertaking, after which questions on a wide range of subjects, covering working arrangements, welfare, and amenities were dealt with in general discussion.

Transportation Centre, Royal Engineers.—The 25th anniversary celebrations of the Transportation and Movement Control units of the Royal Engineers' Supplementary Reserve, to which reference was made in our issue of June 23, are being held at the Transportation Centre, Longmoor Camp, Liss, Hants., on Saturday September 2, and Sunday, September 3. On the open day, September 2, the centre will be open to the public from 1.30 to 7 p.m., when there will be demonstrations and exhibits representing the railway, port, and inland waterway activities of Transportation and Movements. The band of the Parachute Regiment will play during the afternoon and there will be training displays by the Gordon Boys' School, as well as a model engineering exhibition by Chichester & District Model Engineering Society. An Old Comrades' Dance will be held in the Kitchener Theatre on the night of September 2. The reunion will take place on September 2 and 3 and is open to all who have served with any transportation unit, or who have passed through Longmoor, or any other transportation establishment. On



A new type of hurdle, made of tubular steel, which has been designed by the staff of British Railways at Southampton Docks, for partitioning the passenger sheds (see paragraph above)

OFFICIAL NOTICES

Crown Agents for the Colonies

DRAUGHTSMEN required for the London Office: engagement will be on unestablished terms terminable by one month's notice from either side, with the prospect, after satisfactory service, of appointment to the established and pensionable staff, vacancies permitting. The normal working week is 45½ hours and overtime or extra duty allowance is paid for hours worked in excess of 42. Duties entail the preparation of drawings for steel and reinforced concrete structures, including bridges, buildings, and general Civil Engineering design work. **Leading Draughtsman** (M/N/26607/3A): Salary £500 a year, rising by annual increments of £20 to £620 a year, and thence by one annual increment of £5 to £625 a year. Candidates should have had experience as a draughtsman in the office of a civil engineer, the civil engineering department of a railway, or a firm of structural engineers. They should have had considerable experience in preparing designs for bridges and buildings in steel and must be good draughtsmen. A knowledge of reinforced concrete design would be an advantage. **Draughtsman** (M/N/26608/3A): Salary scale £300 a year, rising by annual increments of £20 to £520 a year and thence by one annual increment of £5 to £525 a year. The £300 minimum is linked to entry age of 21 with the addition of £20 for each year above that age, subject to a maximum commencing salary of £440 a year, and the subtraction of £20 for each year below that age. Candidates should have had a suitable training at a polytechnic or a technical school. Some experience in the drawing office of a civil engineer, the civil engineering department of a railway, or a firm of structural engineers would be an advantage. Apply at once by letter, stating age, full names in block letters, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the CROWN AGENTS FOR THE COLONIES, 4, Millbank, London, S.W.1, quoting the reference number of the post applied for on both letter and envelope. The Crown Agents cannot undertake to acknowledge all applications and will communicate only with applicants selected for further consideration.

September 3, after a church parade, the salute at a march past will be taken by General Sir Edwin L. Morris, K.C.B., O.B.E., M.C., the Representative Colonel Commandant.

Repairs to Kennet & Avon Canal Locks.—Owing to the unsafe condition of Burghfield and Heales locks, in the Reading-Newbury area of the Kennet & Avon Canal, the Docks & Inland Waterways Executive was compelled to close the section of the canal between these locks on June 14. A full inspection has now been carried out and has shown that the two locks require reconstruction and that several pairs of gates in intervening locks require renewal. The work is to be undertaken and should be completed by the middle of next year.

Thos. Firth & John Brown.—Lord Aberconway, Chairman, presiding at the annual general meeting of Thos. Firth & John Brown Ltd. at Sheffield, on July 26, said that the accounts showed a disposable balance of £650,001 for the year, after providing for mortgage and debenture interest, depreciation, and taxation, compared with £586,173 for the 15 months ended March 31, 1949. A final dividend of 7½ per cent., free of tax, on the ordinary shares of the company, making with the interim dividend 10 per cent., free of income tax, for the year was approved. After paying the maximum permitted dividend they had a carry-forward greater by £451,801 than at March 31, 1949. Capital expenditure in the year ended March 31, 1950, was £282,360, by far the greater part of which was on new plant and equipment.

Mobile Flue Cleaning.—While the range of industrial portable cleaners made by the British Vacuum Cleaner & Engineering Co. Ltd. offers a comprehensive cleaning service to industry there sometimes arise problems which can only be met by special equipment. An order has now been received from the Boiler & Economiser Scaling Co. (Manchester) Ltd. for a mobile

REQUIRED—Works Manager for an important overseas works engaged in locomotive building and allied products. Good pay and prospects. Experience in works management in an executive capacity necessary. Locomotive building experience advantageous, not essential. Age between 36 and 46. Educational qualifications and details of experience and present emoluments to be stated and salary required.—Write Box 3597, c/o CHARLES BARKER & SONS LTD., 31, Budge Row, London, E.C.4.

THE "PAGET" LOCOMOTIVE. Hitherto unpublished details of Sir Cecil Paget's heroic experiments. Eight single-acting cylinders with rotary valves. An application of the principles of the Williams central-valve engine to the steam locomotive. By James Clayton, M.B.E., M.I.Mech.E. Reprinted from *The Railway Gazette*, November 2, 1945. Price 2s. Post free 2s. 3d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

RAILWAY SIGNALLING AND COMMUNICATIONS INSTALLATION AND MAINTENANCE. A practical guide, especially intended to help Signal Inspectors, Installers, Fitters, Linesmen, Draughtsmen, and all concerned with installing and maintaining Signal, Telegraph, and Telephone Equipment. 416 pp. Many illustrations. Cloth. 8s. By post 8s. 6d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

GLOSSARY OF WOOD. A technical dictionary for all associated with timber and its uses. Ten thousand terms about timber—the common and the little known, the old and the new. Ten thousand definitions covering the entire field of timber and its uses—growth, marketing, utilisation. The commercial timbers, their qualities and uses, tools and wood-working equipment, are all here explained simply, concisely and accurately. Illustrated by many clear line drawings. Price 21s. net. By post 21s. 9d. Tothill Press Limited, 33, Tothill Street, London, S.W.1.

RAILWAY enthusiast with wide knowledge, not specialised, of railway affairs, age 37, Oxford degree with Maths, seeks employment anywhere. Overseas experience, but not with railways. Immigration considered. Has had letters published in R.G. correspondence columns.—Reply Box 808, c/o *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

SITUATION VACANT.—District Traffic Superintendent. Salary £1,000 per annum. Knowledge of Spanish essential. Apply to Secretary, THE PERUVIAN CORPORATION LIMITED, 144, Leadenhall Street, London, E.C.3.

RAILWAY MAINTENANCE PROBLEMS. By H. A. Hull (late District Engineer, L.M.S.R.). Valuable information. With much sound advice upon the upkeep of permanent way. Cloth. 8½ in. by 5½ in. 82 pp. Diagrams. 5s. By post 5s. 3d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

DIRECTORY OF RAILWAY OFFICIALS & YEAR BOOK. A useful reference book for railway officers, engineering firms, and all who do business with railways. The only Directory which enables one to find the right railway and the right officer at the right moment. Issued July each year. Price 30s. net. Tothill Press Limited, 33, Tothill Street, London, S.W.1.

TRANSPORT ADMINISTRATION IN TROPICAL DEPENDENCIES. By George V. O. Bulkeley, C.B.E., M.I.Mech.E. With chapters on Finance, Accounting and Statistical Method. In collaboration with Ernest J. Smith, F.C.I.S., formerly Chief Accountant, Nigerian Government Railway. 190 pages Medium 8vo. Full cloth. Price 20s. By post 20s. 6d. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

plant to undertake the cleaning of Lancashire boilers, and the like. This plant, which is built on a short-chassis Scammell lorry, consists of a primary cyclone, with rotary valve, discharging into a two-way sacking chute, two intermittent cyclones, and two cyclones with 36-in. filters with bucket containers as well as an eight-stage turbo-exhauster. Power is provided by a water-cooled Morris engine. The apparatus is constructed and fitted with counter weights so that it can be folded down when the lorry is in motion.

Belgian Services Affected by Civil Disturbances.—The civil disturbances in Belgium have necessitated the diversion of Paris-Amsterdam services through the Flemish region instead of using the normal line from Mons to Brussels. Services from Switzerland and Germany have also been re-routed. It is stated that there is no service between Brussels and Namur, and that Charleroi Station is closed. Some cases of sabotage on the railways are reported.

Central Uruguay Railway Company of Monte Video.—The joint liquidator of the Central Uruguay Railway Company of Monte Video Limited stated recently that judgment on the claim against the company by former employees would be given probably by November; the maximum possible cost of the claim was about £475,000. This claim is holding up the capital distribution to preference and ordinary stockholders. If successful, it may expose the company to a similar claim by every ex-employee. Final agreement has been reached on settlement of the accounts with the Uruguayan Government.

General Electric Co. Ltd.—The profit of the General Electric Co. Ltd. for the year ended March 31, 1950, amounted to £4,471,692, compared with £3,795,599 for the previous year, an increase of £676,093. Distribution on the £4,198,372 ordinary stock is maintained for the tenth successive

year at 17½ per cent., less tax, with an unchanged dividend 10 per cent. and cash bonus of 7½ per cent. The consolidated net profit attributable to the holding company, after U.K. and overseas taxation, amounted to £1,709,404, as against £1,494,677. The U.K. taxation charged in arriving at the net profit was £2,378,017 (£1,877,973). The balance of net profit dealt with in the accounts of the holding company was £1,498,680, against £1,225,351. The annual general meeting of the company will be held in London on September 28.

Antofagasta (Chili) & Bolivia Railway.—The full year's interest is to be paid on the debenture stocks of the Antofagasta (Chili) & Bolivia Railway Co. Ltd., and after paying 2½ per cent. on account of dividend arrears on the 5 per cent. preference stock for the second half of 1939 and providing for tax contribution to the renewals accounts, and so on, there remains a balance on net revenue account at December 31, 1949 (including £465,556 brought forward), of some £507,700 (against about £493,000, including £463,586 brought forward, at December 31, 1948). A dividend of 2½ per cent. for the first half of 1940 is to be paid on September 1 on the 5 per cent. preference stock, leaving a total of £480,200 carried forward.

New Port in East Pakistan.—To relieve congestion at Chittagong, and to provide an additional outlet for jute traffic, the Pakistan Government has decided on a harbour development project at Chalna, on the Pusur River in the Ganges delta. Cargo will be handled by lighters, and the annual capacity of the port, after completion of works, is estimated at 5,000,000 tons. The nearest railroad to Chalna at present is Khulna, the terminus of a branch of the Eastern Bengal Railway; this branch is part of the broad-gauge E.B.R. lines in process of conversion to metre gauge, as recorded in our issue of July 28. In addition, a connecting line is under con-

struction which will give direct access from the rest of the E.B.R. system without passage (as at present necessary) through Indian territory.

East Anglian Bus Fare Increases.—Permission to increase by ½d. fares up to 6d. and to increase other fares has been granted to the Eastern Counties Omnibus Company and the Norwich Omnibus Company. The Eastern National Omnibus Company has also applied to increase its fares, but a decision on this case is still to be given. All three companies were members of the Thomas Tilling group which sold its undertakings to the British Transport Commission in 1948.

W. H. Smith & Son Limited.—During the financial year ended April 1, the retail and wholesale sections of W. H. Smith & Son Limited showed a "healthy tendency," states Mr. D. J. Smith, the Chairman. More goods were available on the stationery side, though purchase tax had an effect on sales, but at the same time costs rose in all sections and wages particularly showed a large increase on the previous year. Renewal of railway bookstall contracts is now being discussed with the Railway Executive.

British Timken Works Visited by Engineers.—Representatives of the engineering faculties of universities and colleges in various parts of the country recently paid a visit to the Birmingham and Duston works of British Timken Limited and the works of the Fischer Bearings Co. Ltd. at Wolverhampton. This latter firm is a subsidiary of British Timken Limited. The visitors made a conducted tour of the works, and various operations required in the production of the different types of roller bearings were explained by the technical staff of British Timken Limited, who acted as guides. The departments visited included the machine and press shops, heat-treatment departments, and the final inspection and despatch sections.

Tenders Invited for Rimutaka Tunnel.—Tenders are now being called in Britain and other countries by the New Zealand Government Railways for the construction of the Rimutaka Tunnel, which will pierce the Rimutaka Range dividing the Hutt Valley from the Wairarapa district, near Wellington. The tunnel will be over five miles long, lined with concrete and designed to carry a single track of 3 ft. 6 in. gauge. The Public Works Department will undertake the excavation of cuttings and other work outside the tunnel. The specification, drawings and conditions of contract for the construction of the tunnel are available from the Stores Indents Officer, New Zealand Government Offices, 415, Strand, W.C. Tenders close on January 9, 1951. An article on the Rimutaka incline and the new deviation appeared in our May 5 issue.

Forthcoming Meetings

August 9 (Wed.) to 19 (Sat.).—The Model Engineer Exhibition, at New Horticultural Hall, Vincent Square, London, S.W.1.

August 24 (Thu.) to 28 (Mon.).—Railway Students' Association, London School of Economics & Political Science, Annual Convention at Lenton Firs Hall of Residence, Nottingham.

Railway Stock Market

Caution has remained the keynote of stock markets; prices were easier in most sections under the lead of British Funds, which were affected by the prospect of higher taxation to finance rearmament. Declines in values were small and again due more to absence of demand than to selling, which remained moderate. The decision to proceed with the £2,000,000 issue for Sierra Leone was regarded as a pointer to confidence. No doubt this decision has been helped by the big success attending recent issues of debentures by industrial companies. They were heavily oversubscribed, and have indicated big investment demand for high-grade stocks, particularly when there is a reasonable chance of a premium over the issue price in initial dealings.

On the other hand, the good demand for issues of high-grade stocks is due partly to uncertainty in markets, because big financial institutions are unwilling as yet to increase commitments in markets and have considerable funds accumulating as a result. This accumulation is a reason for expecting markets generally to move strongly ahead if there is a better turn in the international situation. Until the Government's rearmament tax decisions are known, however, the Stock Exchange may keep very quiet. Talk of an autumn budget is not taken seriously in responsible quarters; there is now a more hopeful feeling that it may be possible to postpone new taxation until next April. Nevertheless, it is contended in the City that the Government should make known its intentions as soon as possible.

Foreign rails have reflected the inactivity in markets generally. Great Western of Brazil were less active, and lower at 149s. 4½d., though it continues to be assumed that a pay-out equal to 160s. is not improbable. Many holders, however, bought the shares well below the current market price, and it is not surprising that some have elected to take their profit and not await the pay-out. Leopoldina stocks continued to ease, but movements have been small and irregular. The various classes of stocks will probably receive their pay-out by the end of this year, and in all cases current market prices seem below the probable pay-out values. At the time of writing, Leopoldina ordinary has eased to

9½, the preference to 24½, while the 4 per cent. and 6 per cent. debentures were 93½ and 133 respectively. Leopoldina Terminal 5 per cent. debentures were 86 and the ordinary units 1s. 3d.

Canadian Pacific strengthened with dollar stocks, but later eased to \$31½. It is thought that the prospect of higher taxation in the U.S.A. may lead to switching from U.S.A. dollar stocks into Canadian dollar stock. Last week there was a little evidence of this, but the movement was small.

National Railway of Mexico stocks have attracted American support, which accounts for the better prices; the 4½ per cents improved to \$27½, the 4 per cents to \$24½, and the plan "A" and "B" issues were also better. Elsewhere, La Guaira Caracas changed hands around 66; Nitrate Rails shares kept steady at 72s. 6d.; and International Railways of Central America common shares marked \$12½. Manila Railway issues remained firmer, with the "A" debentures at 63 and the preference shares 6s. United of Havana stocks turned firmer with the 1906 debentures at 15½ awaiting news of prospects of any further take-over negotiations resulting from the chairman's visit to U.S.A.

Road transport shares kept steady, although, as was indicated by the statements by Mr. Drayton at the B.E.T. meeting, increased costs may necessitate increased fares. West Riding have eased to 59s. 6d.; Southdown were 113s. 9d. Lancashire Transport 78s., and B.E.T. stock 435 after touching 440.

Iron and steels have again moved higher, as have the shares of companies which will benefit directly or indirectly from rearmament. United Steel were up to 28s., Dorman Long 31s., South Durham 31s. 9d., and Beardmores 46s. 3d. Rearmament, it is felt in the City, may well mean that there will now be no question of nationalisation until 1952. Nevertheless, iron and steel companies threatened by state control cannot increase their dividends, for this is forbidden by the Steel Act.

The shares of locomotive builders and engineers kept steady. Hurst Nelson were 56s. 6d., Birmingham Wagon 28s. 7½d. Wagon Repairs 5s. shares 16s. 9d., Vulcan Foundry 19s. 6d., Beyer Peacock 22s. 3d., and North British Locomotive 17s., while T. W. Ward improved to 63s. 3d.

Traffic Table of Overseas and Foreign Railways

	Railway	Miles open	Week ended	Traffics for week		No. of week	Aggregate traffics to date			
				Total this year	Inc. or dec. compared with 1948/49		Total	Increase or decrease		
							1949/50			
South & Central America	Antofagasta ...	811	23.7.50	£ 68,880	+	£ 8,080	29	£ 1,743,164	—	£ 179,160
	Costa Rica ...	281	May, 1950	c1,034,427	+	c46,785	48	c9,483,848	—	c1,726,592
	Dorada ...	70	June, 1950	23,781	+	2,219	26	231,172	+	60,567
	Inter. Ctl. Amer. ...	794	May, 1950	\$1,083,611	—	88,330	21	\$5,914,799	+	\$466,171
	La Guaira ...	224	June, 1950	\$58,956	—	\$36,630	26	\$503,317	+	\$148,198
	Nitrate ...	382	15.7.50	18,801	—	723	28	255,421	+	16,254
	Paraguay Cent. ...	274	21.7.50	¥193,323	+	¥63,321	30	¥6,596,997	+	¥155,761
	Peru Corp. ...	1,050	June, 1950	\$6,883,000	—	\$2,164,878	52	\$71,217,058	+	\$20,580,508
	„ (Bolivian Section)	66	June, 1950	Bs. 4,067,000	—	Bs. 3,531,834	52	Bs. 110,749,664	+	Bs. 7,004,480
	Salvador ...	100	Apr., 1950	c148,000	—	c34,000	43	c1,624,000	—	c166,000
Taltal ...	154	June, 1950	19,090	+	7,235	52	173,510	+	61,900	
Canada	Canadian National†	23,473	June, 1950	15,923,000	+	2,393,000	26	85,318,000	+	6,393,000
	Canadian Pacific†	17,037	June, 1950	10,774,000	+	1,085,000	26	59,102,000	+	690,000
Various	Barsi Light* ...	167	June, 1950	30,675	+	6,502	13	90,937	—	2,242
	Egyptian Delta ...	607	31.5.50	18,022	—	1,930	9	104,633	—	12,906
	Gold Coast ...	536	May, 1950	256,113	+	27,427	9	484,862	+	30,111
	Mid. of W. Australia ...	277	May, 1950	36,409	+	5,286	48	345,258	+	23,758
	Nigeria ...	1,900	Jan., 1950	502,360	+	38,978	44	5,017,814	+	266,573
	South Africa ...	13,347	8.7.50	1,696,953	+	179,579	16	22,488,594	+	1,761,334
	Victoria ...	4,744	Apr., 1950	1,721,471	+	276,573	44	—	—	—

* Receipts are calculated at 1s. 6d. to the rupee

† Calculated at \$3 to £1